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ABSTRACT

Differences in historical, political, cultural, and economic contexts in sub-Saharan Africa (SSA) account for wide variations in structures, operating conditions, and outcomes in technical and vocational education (TVE). This diversity is associated with glaring disparities, so in examining policy trends and the reconstruction of training systems particular attention is focused on innovations in an effort to identify promising initiatives likely to contribute to the establishment of consistent TVE systems, closely linked with the world of work and involving labor market stakeholders. Some common emerging trends in TVE include the following: (1) a shift in the policy focus from inputs to outputs; (2) the use of new financing and certification mechanisms; (3) the involvement of social partners in governance; greater autonomy for institutions; (4) the promotion of private providers and company-based training; and (5) an increasing interest in the informal sector and skills development for poverty reduction. Issues addressed include these: (1) an overview of TVE systems in 10 SSA countries; (2) reviewing various models currently in place; (3) documenting relationships between African TVE systems and policies and donor intervention and traditions in TVE; (4) identifying reasons why certain reforms are facing implementation difficulties; analyzing specific innovations; (5) drawing lessons on the implementation of the reform agenda and its impact on TVE systems; and (6) discussing possible directions for future donor support. (Includes 167 references.) (MO)

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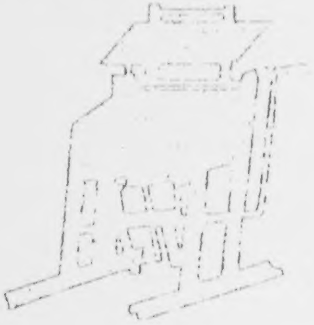
New trends in technical and vocational education

Higher education and specialized training

ED 480 334

REVISITING TECHNICAL AND VOCATIONAL EDUCATION IN SUB-SAHARAN AFRICA

An update on trends, innovations and challenges



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An update on trends, innovations and challenges

David Atchoarena and André Delluc

with contributions from
Adrienne Bird, James Glover, Wanjala Kerre,
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Contents

List of abbreviations ix
Foreword xiii
Acknowledgements xv
Executive summary 1
General introduction 15

Part I. Literature review 21

Introduction 23

Chapter I Main features of technical and vocational education systems in sub-Saharan Africa 25
1. Background 25
2. Forms of technical and vocational education 33
3. Governance of technical and vocational education 36
4. The objectives of technical and vocational education 37
5. The weight of technical education in the education system 38
6. The position of girls in technical and vocational education 43
7. Public financing of technical and vocational education 44
8. The integration of young people into the labour market 47

Chapter II Revisiting technical and vocational education: critique and new directions 50
1. The international community 50
2. The African community: policy dialogue among French-speaking countries 54
3. Converging orientations 57
4. The country reform agenda 57
5. Strengthening co-operation between enterprises and TVE institutions 58

Chapter III Bilateral donor policies for technical and vocational education 65

1. Revisiting aid 65
2. An overview of international aid to technical and vocational education 66
3. France 70
4. Germany 77
5. Switzerland 83
6. Comparative review 86
7. Other donors 88
8. Trends and issues in aid to TVE 94

Final remarks 95

Part II **Changes in French-speaking Africa : review of four country experiences** 97

Introduction 99

Chapter I Review of TVE in four countries (Côte d'Ivoire, Madagascar, Mali, Senegal) 101

1. Côte d'Ivoire 101
2. Madagascar 110
3. Mali 117
4. Senegal 126

Chapter II The French model and its implementation in Africa 134

1. Legacy of the past 134
2. Adapting the model: main lines of reform 140

Chapter III Challenges and policy responses 147

1. Reconstructing the TVE sector 147
2. Curriculum and training issues 184
3. Return to the French case 189

Chapter IV The role of donor policies 196

1. Their evident interest 196
2. The various levels of intervention 196
3. The preparation of projects 197
4. The new approaches developed by the French assistance 198

Conclusions and guidelines for donor support to the TVE sector in French-speaking sub-Saharan Africa 199

Part III **The transformation agenda in six English- and Portuguese-speaking countries** 207

Introduction 209

Chapter I An overview of TVE in six countries (Botswana, Eritrea, Ghana, Kenya, Mozambique, South Africa) 211

1. Botswana 211
2. Eritrea 222
3. Ghana 229
4. Kenya 235
5. Mozambique 241
6. South Africa (post-apartheid SA) 244

Chapter II Innovations and challenges 257

1. Organization and management patterns 257
2. Delivery patterns 271
3. National qualification frameworks 303
4. Financing 319
5. HIV/AIDS: implications for TVE 333

Conclusions 339
Bibliography 345

List of abbreviations

AFPA	Association pour la formation professionnelle des adultes
AGEFOP	Agence nationale de la formation professionnelle
AGEPE	Agence d'étude et de promotion de l'emploi
ANPE	Agence nationale pour l'emploi
APD	Aide publique au développement
AREF	Association régionale de formation
ARIF	Association régionale interprofessionnelle
BT	Brevet technique
BTS	Brevet de technicien supérieur
CA	Centres d'apprentissage
CAP	Certificat d'aptitude professionnelle
CEP	Certificat d'études primaires
CEREQ	Centre d'études et de recherches sur les qualifications
CERES	Centre de ressources des personnels des établissements d'enseignement technique et professionnel
CESAG	Centre africain d'études supérieures en gestion
CET	Collège d'enseignement technique
CFA	Centre de formation d'apprentis
CFCE	Contribution forfaitaire à la charge de l'employeur
CFPT	Centre national de formation professionnelle et technique
CIC	Comité interprofessionnel consultatif
CNFTP	Conseil national de la formation technique professionnelle
CNQP	Centre national de qualification professionnelle
CNRST	Centre national de la recherche

8

CPC	Commission paritaire consultative
CPF	Centre de formation professionnelle
CRETFP	Centre régional d'enseignement technique et de formation professionnelle
CRFP	Centre régional de formation professionnelle
CT	Collège technique
DEF	Diplôme d'études fondamentales
DGGETFP	Délégation générale du gouvernement à l'enseignement technique et formation professionnelle
DTS	Diplôme de technicien supérieur
DUT	Diplôme universitaire de technologie
DUTS	Diplôme universitaire de technicien supérieur
ECICA	École centrale pour l'industrie, le commerce et l'administration
ENP	École nationale professionnelle
ENSET	École nationale supérieure de l'enseignement technique
EPM	Enquête prioritaire auprès des ménages
FAFPA	Fonds de financement de la formation professionnelle et de l'apprentissage
FCIL	Formation complémentaire d'initiative locale
FIFP	Fonds d'intervention de la formation professionnelle
FPI	Formation professionnelle initiale
FPQ	Formation professionnelle qualifiante
FTG	Formation technologique générale
GIREFTP	Groupement régional des centres de formation Technique et professionnelle
GRETA	Groupement d'établissements
IDA	International Development Agency
INSTAT	Institut national de la statistique
IPNETP	Institut pédagogique national de l'enseignement technique et professionnel
IREDU	Institut de recherche sur l'économie de l'éducation

LTP	Lycée technique et professionnel
MESRS	Ministère de l'Enseignement supérieur et de la Recherche scientifique
MESSRS	Ministère des Enseignements secondaire, supérieur et de la recherche scientifique
METFP	Ministère de l'Enseignement technique et de la Formation professionnelle
MINESEB	Ministère de l'Enseignement secondaire et de l'Éducation de base
MJEFP	Ministère de la Jeunesse, de l'Emploi et de la Formation professionnelle
NACVET	National Council for Technical and Vocational Education and Training
OEMF	Observatoire de l'emploi, des métiers et de la formation
ONCE	Observatoire national des compétences et de l'emploi
ONEF	Observatoire national de l'emploi et de la formation
ONFP	Observatoire national de la formation professionnelle
ONMOE	Office national de la main-d'œuvre et de l'emploi
OREF	Observatoire régional Emploi-Formation
PCFP	Projet de consolidation de la formation professionnelle
PDEF	Plan décennal de l'éducation et de la formation
PNDEF	Plan national de développement du secteur Éducation/Formation
PREFTEC	Projet de renforcement de la formation technique et professionnelle
PVRH	Programme de valorisation des ressources humaines
SNFFTP	Système national de financement de la formation technique et professionnelle
SPIDS	Syndicat professionnel des industries et des mines du Sénégal
UFAE	Unité de formation et d'appui aux entreprises

Foreword

The future of technical and vocational education is generating heated debate nearly everywhere in the world, including sub-Saharan Africa. To a large extent, this is related to the challenges of globalization, but it also reflects concern for youth employment and poverty alleviation.

In the 1990s technical and vocational education received little attention in sub-Saharan Africa. The Dakar commitment to basic education and the fact that technical and vocational education was considered as becoming obsolete and not sufficiently cost-effective explains this disdain. However, in recent years most countries in the region have embarked on often ambitious reforms to improve the provision of skills. This reform movement involves important efforts to rehabilitate technical and vocational education and training with the aim of making it more flexible, of a higher quality and capable of responding better and more rapidly to the needs of the labour market. Another important concern is lowering costs for governments. This is often translated by initiatives to bring teaching closer to the workplace.

Looking at the recent trends in selected countries, this publication provides an updated view of African technical and vocational education systems and analyzes both the nature of the ongoing reforms and their early impact. In an effort to adopt a proactive perspective, particular emphasis is placed on innovations.

This work shows that, far from disappearing from the African educational scene, as some observers were predicting, technical and vocational education is undergoing change and modernization in an effort to better meet the needs of the labour market without sacrificing its social function. Nevertheless, many questions remain as to the final impact of this process. The effects of globalization on skills and future growth patterns of African economies are among the factors which will shape innovations in this field of education.

It must be noted that the research which provided the materials for this publication is part of a broader review initiated and funded by the World Bank on vocational skills development in sub-Saharan Africa. It is hoped that this work will provide governments, as well as donors, with the necessary analysis and perspective to improve skills and competences in order to better address the challenges of globalization while reducing poverty and consolidating the social fabric of African societies.

Gudmund Hernes
Director, IIEP

12

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This publication is the result of a joint effort involving individual authors as well as institutions. In particular, education sector institutions in Botswana (Ministry of Education), Ghana (National Coordinating Committee for technical and vocational education and training), Madagascar (Observatoire national de l'Emploi et de la Formation) and South Africa (Department of Labour) were instrumental in producing this book.

The work has also benefited greatly from close collaboration with Richard Johanson, World Bank consultant.

Thanks are due to all of these people and institutions for their help.

Executive summary

1. Introduction

The book documents TVE policy trends in sub-Saharan Africa (SSA) and the reconstruction of training systems. A focus is made on innovations in an effort to identify promising initiatives likely to contribute to the establishment of consistent TVE systems, closely related to the world of work and involving labour market stakeholders. However, this study is not intended to provide an evaluation of TVE systems and policies in SSA.

The range of issues addressed by the document include:

- providing an overview of TVE systems in 10 sub-Saharan countries;
- reviewing the various models currently in place and their evolution;
- documenting the relationship between African TVE systems and policies and donor intervention and traditions in TVE, with special reference to French-speaking African countries and France;
- identifying reasons why certain reforms are facing implementation difficulties;
- analyzing specific innovations, including their strengths and limitations;
- drawing lessons on the implementation of the reform agenda and, when possible, on its impact on TVE systems;
- discussing possible directions for future donor support.

2. Overview

The situation of TVE varies widely across sub-Saharan countries. Delivery systems are quite diverse, combining school-based provision with other non-formal training arrangements. This diversity in provision patterns is associated with great disparities regarding the current state of public TVE systems. Differences in historical, political, educational, cultural and economic contexts largely account for such variations in structures, operating conditions and outcomes.

The economic and financial crisis that has struck the countries of sub-Saharan Africa since the mid-1980s has brought deep changes in the structure of the production system and to the labour market. The end of guaranteed access to public-sector employment has contributed to graduates' increasing unemployment and deterioration of the rate of return of investments in post-basic education.

In this context, TVE systems, originally shaped on the model of the former colonial powers, gradually became unable to train young people with the qualifications demanded by businesses. In addition, TVE became too expensive in the context of structural adjustment programmes and related public spending cuts. In turn, inadequate investment in TVE contributed to its deterioration and further aggravated issues of effectiveness and efficiency. The need to break this vicious circle eventually led to the reconsidering of policy options and delivery patterns.

Today, emerging common trends can be identified. In addition to the specific crisis affecting most TVE systems in sub-Saharan Africa, globalization associated with the rise of a market-oriented paradigm in education shaped the reform process along similar lines. Shifting the policy focus from inputs to outputs, through new financing and certification mechanisms, involving social partners in governance, granting more autonomy to institutions, promoting private providers and company-based training are part of this new approach. In addition, the specific socio-economic conditions of African economies are reflected in an increasing involvement in the informal sector and skill development for poverty reduction.

3. Evidence from French-speaking Africa

The profile of TVE in the four French-speaking countries studied reveals contrasting situations regarding the place of TVE in the education system, as well as its relations with the world of work. Above and beyond national specificity, the four countries often encounter difficulties of the same nature, especially when trying to balance supply and demand.

The origins of these difficulties reside probably, at least in part, in the common mould constituted by the French model of the 1960s. Today, whilst it has mostly disappeared in France, this legacy is still highly visible in French-speaking Africa, and has generated a great deal of rigidity in the institutions, slowing down their capacity to meet the challenges inherent in their social and economic development.

The efforts which are undertaken, or are necessary, to make these systems evolve to strengthen linkages between training and employment, need highly targeted support, particularly at the local level, where the relationships between schools/enterprises are easier to promote. This readjustment can only come about if there is greater institutional flexibility so that it stimulates local initiative. As the support measures do not always reach the establishments, they run the risk of reinforcing the rigid structures or of creating new bureaucracies little able to infuse the TVE systems with dynamism.

The orientations proposed concern four areas of support:

- in the relationship between school/enterprise;
- in the content, the pathways and the diplomas, viewed from the angle of the qualifications required;
- in the establishment of the rules necessary to facilitate the development of innovations;
- in the support strategies that allow for the targeting of the levels of intervention that are most likely to be of help in making the system evolve.

3.1 The relationship between school/enterprise

3.1.1 Reinforcing the role of the establishments

The training/enterprise relationship makes sense at a local level. Today, the great majority of training centres do not have a unit in charge of relations with enterprises. Within the establishments, such a mechanism would have as a function the registering of data concerning the local enterprises, their activities, and, if possible, their needs. Targeted continuing-education activities, the organization of work-experience programmes, the provision of labour market assistance to graduates and, later on, their follow-up would also come under its responsibility.

Instructions at a national level should encourage the centres to establish such units. Whilst remaining modest (a room, a computer and a travel indemnity), such a mechanism, run by a teacher, could contribute to the collection of data on the local labour markets, information which it is often difficult for the observatories to obtain. Co-ordination and a follow-up at national level would ensure the mobilization of central services and of the observatories. The necessary financing could be obtained from the funds for the financing of training, where they exist, or by involving other sponsors. The importance of the information collected, which would increase the effectiveness of the local supply of training, would justify this type of support. This local approach to transition from school to work would contribute, furthermore, towards finding a palliative to the present deficiencies of the observatories.

3.1.2 The consolidation of apprenticeship

One of the most obvious deficiencies of the TVE systems in the French-speaking sub-Saharan African countries, is the fact that they ignore the informal sector, especially the artisans' micro-enterprises. Originally modelled on the school system, TVE has not taken into account traditional apprenticeship – in spite of the importance of this sector for the economy, as well as for employment – and the need to improve it.

This practice constitutes, however, an endogenous form of training, particularly adapted to the social and economic conditions of the countries of the region. Its limits reside to a large extent in the fact that the people in charge of training the apprentices are not capable of supplying the necessary complementary theoretical knowledge involved in the skills transmitted.

Largely stimulated by the Swiss and German co-operations, support for dual training is now fairly well acknowledged. Within this framework, the TVE establishments are called upon to participate in the complementary training of the apprentices. Other than Togo, which is well advanced in this field, various countries envisage it (Senegal), or are starting to undertake it (Benin).

It seems necessary to encourage this support for apprenticeship, but the public training centres and their trainers are not used to this new category of students. The apprentices cannot become pupils again. It would thus appear to be appropriate to use the experience of innovative NGO programmes as a form of inspiration (Swiss support in Mali, German support in Togo and Benin). Various flexible and experimental frameworks could be developed in this respect on the basis of a tripartite management of training, associating the state, the association of artisans and the NGO partners.

3.2 Pathways, contents and diplomas

3.2.1 Building new pathways

Starting with a model mainly containing technical secondary education, other types of training courses have progressively appeared as a result of pressure from the labour market. Initial vocational training courses, short-term technical higher education, and continuing education are now part of the TVE environment in the sub-Saharan countries. Traditional apprenticeship, which is still vigorous, can, furthermore, be added to these formal modalities.

In order to be effective, this panoply of varied yet disjointed forms of training should be organized into proper streams of training, integrating successive levels of study, going from the qualified worker to the advanced-level technician. This necessary rationalization would imply not only a revision of the central institutional organization and the way of financing, but would also necessitate a renovation of the establishments' mode of operation.

An approach per stream would permit, in a given trade area, the linking of all the levels of qualification by combining initial training and continuing education.

3.2.2 Mobilizing resource persons for the design and actualization of the programmes and diplomas

Mixed working groups (public/private), established per trade area and involving resource persons known for their professional skills, would be officially responsible for finalizing and experimenting new forms of training courses within the establishments where the corresponding specialities are to be found. The participation of trainers experienced in establishing partnerships with the enterprises, and the active involvement of the headteachers, would facilitate the implementation of new training courses, both initial and in the form of continuing education.

These same groups could formulate interesting recommendations on the harmonization of the various courses, the renovation of the contents of the programmes and the revision of the length of the training courses which lead to the various diplomas (Vocational Training Certificate (CAP), Technical Bac, Advanced Vocational Training Certificate (BTS)).

These groups, divided into consultative committees, could eventually be given the support of external expertise.

3.2.3 Restoring the balance in the structure of the supply of training and the regulation of flows

In certain countries, like Senegal, the image of the 'inverted pyramid' represented by the training courses clearly illustrates the excessive weight of higher education to the detriment of basic training (particularly, the Vocational Training Certificate (CAP)). Besides a national programming of the regulation of flows, a redistribution of means towards lower levels of training could benefit from increased institutions' responsibility. Within the framework of institution development projects, the teaching teams could study the local market's potential and design proposals in order to better respond to its needs.

3.2.4 Deciding upon the future of technical education

It is necessary to take an urgent decision on its future by defining a policy for short-term technical training at the higher education level (BTS-type). This should be done through consultations with the higher education sector to establish complementarity between the BTS and the University Diploma of Technology (DUT), in order to avoid the effects of competition or duplication.

3.3 The rules and regulations

3.3.1 Introducing an experimental status

Most innovations come up against rules and regulations which constitute brakes, even insurmountable obstacles. The experimental status would consist in provisionally giving all the necessary special dispensations to a training centre to implement, over the necessary period of time and under supervision, the experiments which are considered by the central level to be the most interesting. The effectiveness of such a measure presumes that a certain number of conditions be met:

- a regular self-evaluation of the experience taking place;
- a monitoring by the Ministry through an ad hoc committee, able to take decisions in view of sustaining the project and to ensure that periodic information is given to other establishments with a view to an eventual extension of the innovation.

3.3.2 Regulating income-generating activities

The Senegalese example shows that the commendable initiatives taken by the establishments in order to develop income-generating activities to complement insufficient operating budgets must be regulated. A rigorous monitoring would, in particular, allow for the evaluation of the size and the consequences of these services (training courses or productive work) for the establishment. Moreover, the precise verification of the allocation of the resources raised is a necessary condition for ensuring proper evaluation and transparency.

In order to be effective, this regulation should recommend that skill-needs analysis be undertaken before the opening of new fee-paying courses.

3.3.3 Making TVE institutions autonomous

A large body of opinion seems to be emerging in favour of a greater autonomy for the establishments, at a national level (10-year programmes) as well as international level (CONFEMEN in Bamako, Seoul Congress). However, no innovative proposal on this subject has taken place in the countries studied (with the exception of those authorizing complementary resources, as in the particular cases of Senegal and Togo).

Certain establishments that are well known for the quality of their training courses have long since had a particular status which confers upon them a greater autonomy (as in the CNQP in Dakar). Such well-recognized and established examples could serve as a model.

The necessary changes to the establishments' status would consist, in particular, in opening up their management to the partners on the labour market by creating multi-party boards. The accountancy framework that governs the operation of the establishments should also be revised so that it is adapted to the diversity of the services that they offer (initial training, job-related training, productive work). Such arrangements could be endowed with the experimental status mentioned above.

3.4 The support strategies

3.4.1 Strengthening employer associations' capacities with regard to training

Trade associations are in great need of assistance in order to improve their capacities in the field of training. Eventually, they will be called upon to collaborate with the training centres to define, together with them, the training to be adapted to the needs of the enterprises. However, whereas the professional organizations are increasingly solicited for information about employment, qualifications and training needs, they have not yet been prepared for such a contribution. Thus, the information that they can supply for the planning of TVE is often disappointing.

The implementation of an efficient partnership thus also needs to include a reinforcement of the capacity of the organizations. This should enable them to conduct surveys amongst their members from which they might be able to draw conclusions for useful proposals for the improvement of the supply of initial training and continuing education.

3.4.2 Developing the training of trainers

Trainers are, as a whole, insufficiently trained for the fulfilment of their respective tasks, often new to them, which are imposed upon them as a result of their contacts with enterprises. In addition to the consolidation of their technical skills for giving them a command of the knowledge related to the trades that they have to teach, it is henceforth necessary to give them skills in building up such relationships. The trainers must be prepared to go out of their school to meet the enterprises. They have not been trained in the teacher training colleges, when they exist, to fulfil these assignments.

This type of training for the trainers could be linked to experiments in the involvement of enterprises in the definition of new programmes. The trainers would thus be asked to undertake training courses in an enterprise that is directly linked to the contents of the training they dispense.

3.4.3 Enlarging the role of skill development funds

These funds, principally aimed at continuing education, could finance studies/pilot development activities for increasing the effects of continuing education on initial training. As such, two themes would seem to be particularly interesting:

- the adaptation of initial training programmes, based on the knowledge acquired from workers and enterprises through the provision of job-related training;
- the organization of work-experience programmes and labour market assistance based on the contacts established with the enterprises within the framework of continuing education.

21

3.4.4 Establishing a synergy between the various support mechanisms for TVE

After some years of operation, the various support mechanisms sometimes present overlapping zones which damage overall effectiveness. Employment observation, curriculum development, training advice, the promotion and financing of continuing education constitute assignments which are often difficult to link. In addition, they (still?) have little effect at the level of the establishments.

A better co-ordination of these organisms, a shortening of the decision-making circuits and, above all, the granting of more responsibility to the training centres for the collection of data and the analysis of the local market are probably necessary in order to improve the efficiency of these mechanisms.

3.4.5 Improved co-ordination of donor support

The reinforcement of the management of the TVE systems necessitates a better co-ordination of donor support, including bilateral and multilateral aid. Experience has shown that when implemented, the global effectiveness of the aid increases. This is the case in Togo, where the German and French aids work within the common national framework of the Regional Centres for Technical and Vocational Education (CRETFP). In Mali, the prior agreement between the World Bank and the French assistance allowed for a good link to be created between the UFAE and the FAFPA. Still in Mali, the Swiss experience in the field of apprenticeship helped the French aid to intervene in this sector, of which it had little knowledge. This was facilitated by the good relationships established in connection with the FAFPA.

The search for the solutions best adapted to African realities reduces the tendency of donors to promote exogenous models and to support dispersed development activities that have no linkages. This concern for adaptation and interaction results in donor partnerships that it would be advisable to reinforce.

4. Lessons from English-speaking and Portuguese-speaking countries

The review of TVE in English-speaking and, to a lesser extent, Portuguese-speaking Africa shows that there is an increasing policy attention for TVE. The reform of TVE constitutes an important component of the education reform agenda. This renewed interest reflects both a concern for employment problems and a strategy to improve economic competitiveness. For Southern African Development Community (SADC) countries, the TVE reform agenda contributes to a broader development project towards increased regional integration, including the movement of qualified labour.

Compared to French-speaking countries, the reform process has adopted more 'radical' lines of intervention, including greater attention to skill development and employment in the informal sector, promoting entrepreneurship and self-employment training and opting for a new outcome-based system based on the establishment of a national qualification framework. In the area of financing too, some countries, although a small minority, have chosen to introduce a levy to support initial vocational training, following the experience of many Latin American countries. This transformation movement suggests that TVE in these countries has been more innovative and better able to move away from the school-based system, although it is still very present. In so doing, the concerned countries have been able to take advantage of – or have been more exposed to – a diversity of donors with their respective models. This wider exposure to international TVE trends, compared to French-speaking countries, may have contributed to deeper changes.

4.1. Promising changes and innovations

4.1.1 Shifting management responsibilities towards the employers' side

- There is a clear trend towards the establishment of national co-ordination and/or consultative bodies involving employers. This shift in governance pattern, although probably not applicable to all environments, is likely to bring TVE systems closer to the needs of enterprises. This movement is quite different from the pattern prevailing in French-speaking Africa, where the Ministry-based governance system remains in place.
- To a large extent, this development is related to a new thinking in public policy which advocates partnership as a key principle to increase efficiency and accountability in public management, ensure ownership of policies and improve relevance of delivery.

4.1.2 Promoting dual forms of training

- In all of the reviewed countries, employers' participation in training delivery is an increasing concern and forms part of TVE policy interventions.
- Contrary to the situation in French-speaking Africa, English-speaking countries have much stronger experience, and sometimes a tradition, both in dual forms of public-sector training and in the provision of training for the artisan sector.
- Some countries are well advanced, in terms of policy development, in modernizing apprenticeship schemes to integrate them into a national training system (Botswana, Ghana, South Africa).
- Similar to what is happening on an experimental basis in some French-speaking countries, the opening up of public TVE institutions to the informal sector is likely to produce positive indirect effects on initial training.

4.1.3 Encouraging entrepreneurship and self-employment

- In the studied countries, entrepreneurship training is given increasing attention in an effort to alleviate unemployment but also to increase competitiveness. In countries where labour markets were for a long time dominated by public-sector employment, this in itself constitutes a positive incentive.
- The development of entrepreneurship awareness and skill programmes in TVE institutions seems consistent with macro-level efforts to increase international competitiveness and alleviate poverty.
- Converging findings suggest that entrepreneurship training needs to be included in a broader package including access to credit, technical assistance and post-training support, as illustrated in the ISTRA programme in Zimbabwe.

4.1.4 Attempting to establish outcome-based systems

- This trend reflects an increasing degree of policy convergence in TVE, particularly in SADC countries.
- For SADC, the development of compatible national qualification frameworks represents a strategic instrument to increase the competitiveness of the sub-region and contribute to further economic and labour market integration.

4.1.5 Reviewing funding sources and principles

- The introduction of a training levy can constitute a significant trend towards increasing employers' participation in training issues.
- The strategy followed in South Africa for establishing a formula funding scheme reflects a broader international trend towards output-related funding in TVE. This will be quite an innovative and potentially productive reform and, as such, will deserve particular attention.
- Besides macro-level responses, the signal is given almost everywhere to promote income-generating activities at the institution level. This trend is convergent with observations made in French-speaking countries.

4.2 Areas of moderate achievement

- Although consistent in essence, the establishment of the National Training Board produced mixed results.
- Similar conclusions can be derived from the implementation of training levies and their contribution to the emergence of a market for training. On this point it seems that not enough attention is paid to the experience of other countries and the importance of building trust with industry.[1]
- In some cases, the gap between sound policy intentions and instruments and poor results may be due to the fact that not enough attention is paid to contextual environments and to implementing capacities of national institutions.

5. Overall conclusions

Despite the progress made during the 1990s in re-engineering delivery systems, TVE remains a problematic area of public policies for sub-Saharan countries. Hence, the review produces an image of unfinished business.

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[1] A recent illustration of this was offered by Australia in 1994, when the government had to suspend the Training Guarantee Levy due to strong industry resistance. Adopting a more cautious approach, New Zealand intended to ballot all enterprises in 2001 as to whether or not they would support a levy. If the majority supported a levy, all enterprises would be required to pay.

To a large extent, the reform agenda implemented in sub-Saharan countries concentrated on establishing new forms and new structures of regulation focusing on outcomes and providing incentives to employers and individuals for increasing investment in training, and to providers to better match skill needs. There is sufficient evidence that, in most countries, this recommended policy shift, in spite of its potential merits, did not produce full results. This was partly due to deficient implementation of the reform but also to disappointing responses from stakeholders. In particular, subsidies or incentives offered to employers, through levy-based mechanisms, have not produced the desired effect on increased partnership. The existence of a depressed labour market and the impact of growth uncertainties contribute to shorten the strategic horizon of most employers. Hence, developing a practice of partnership and a culture of training seems to take more time than initially anticipated.

Similarly, the emerging focus on learners' motivation and incentives seems to lack relevance in educational environments where the main issues remain the ones of access and provision. Poor and – in some countries – decreasing quality of training represent major challenges. Addressing them constitutes a prerequisite for gaining employers' confidence and introducing competition among providers (e.g. Mauritius).

Although important, strengthening training capacities for the informal sector does not represent a sufficient perspective to contribute to the transition of sub-Saharan Africa from cheap labour to skill-based competitiveness. More attention and support is required at the institution level to change public providers' attitudes while improving quality of provision.

In some areas, the reform process did not seem to pay sufficient attention to international experience. The introduction of a levy represents one of the most controversial measures. Yet, experience has shown that such a system can hardly be effective if most employers oppose it. Such a basic lesson does not seem to be fully understood.

Even more of a paradox is that many micro-level innovations, concerning the management and operation of TVE institutions, are overlooked by governments and therefore never go beyond the experimental stage. This lack of institutional memory and scaling-up capacity is partly due to relatively frequent changes in the organization and management of the TVE sector.

Finally, the issues of contextual environments and policy complexity need to be re-emphasized. TVE policies and donor support in the least developed economies of the sub-region must be dissociated from the situation in countries benefiting from a larger and more diversified economic basis. Furthermore, the transfer in weak institutional contexts of complex policy innovations can be harmful. Obviously the balance between policy complexity and institutional capacity is not sufficiently taken into account by countries and donors.

General introduction

1. Rationale

Schools everywhere are being asked to prepare young people for the jobs of tomorrow, and technical and vocational education (TVE) has an important role to play in this process. The multidisciplinary nature of TVE and its supposedly close links to the world of work make it one of the education sectors that contributes most to the training of skilled labour and gives both young people and adults the knowledge required to ply a trade. For many, it is a passport to employment and the possibility of social advancement. Technical and vocational education is therefore considered essential because a country cannot achieve economic and social development without a skilled, productive labour force that can meet the changing requirements of its environment.

However, TVE systems are everywhere facing challenges to prepare a sufficient number of people with the right skills to meet labour market demands. Matching skills, knowledge and attitudes to the needs of employment is increasingly challenging in the current context of globalization and rapid technological change due to the constant transformation of occupations. A critical issue for TVE planners and managers is how to train individuals for future jobs on the basis of information covering past and present labour markets.

This global dilemma is aggravated in sub-Saharan Africa due to the permanence of adverse economic, social and educational conditions. Yet, the perceived supply-driven feature of most TVE systems made the reform even more urgent, as compared to other regions. The main criticisms of TVE in SSA included the excessive weight of public-sector provision, legacy of the manpower planning approach, often associated with low quality, high relative cost and poor external efficiency. In the early 1990s, this severe diagnosis and the number one priority given to basic education led to reduced external support to the sector and to the implementation of major reforms to make TVE systems responsive to labour market needs, including those of the informal economy. This agenda was precisely outlined in the 1991 World Bank sector policy paper on vocational and technical education and training.

2. Aims of the study

Ten years later it is worth looking back to see what has happened in SSA countries. The reforms that have been implemented, sometimes with the support of the World Bank, took place in the new context of globalization. Furthermore, they were also undertaken, in most cases, in an adverse macro-economic context reflected in various dimensions such as the marginalization of the sub-region in international trade, the aggravation of labour market conditions and the increasing number of poor. In other words, the optimistic views expressed in the early 1990s on the future of Africa did not quite materialize. Today some of the most promising and dynamics experiences are threatened by the long-term impact of HIV/AIDS.

In this overall context, this study documents the policy trends in the sub-region and the reconstruction of TVE systems. A focus is placed on innovations in an effort to identify promising initiatives likely to contribute to the establishment of consistent TVE systems, closely related to the world of work and involving labour market stakeholders. However, this work is not intended to be an evaluation of TVE systems and policies in SSA.

Specific objectives of the study include:

- to provide an overview of TVE systems in 10 sub-Saharan countries;
- to review the various models currently in place and their evolution;
- to document the relationship between African TVE systems and policies and donor intervention and traditions in TVE, with special reference to French-speaking African countries and France;
- to identify reasons why certain reforms are facing implementation difficulties;
- to analyze specific innovations, including their strengths and limitations;
- to draw lessons on the implementation of the reform agenda and, when possible, on its impact on TVE systems;
- to formulate guidelines for future donor support.

3. Definition of terms and scope of the study

Terminology is a significant problem in the field of technical and vocational education. The terms technical and vocational education (TVE), technical and vocational education and training (TVET), vocational education and training (VET), are often used to describe the same thing. This ambiguous language makes international comparisons difficult. This will be illustrated further in the report. However, the fact is that differences among countries in concepts and definitions make statistical comparisons difficult. Low comparability suggests that available international data must be treated with caution.

The conceptual specificity of TVE relates to its transversal nature, crossing across levels (secondary but also tertiary) and sectors (formal, school based but also non-formal or even informal through traditional apprenticeship).

In a 1997 document on the revision of the International Standard Classification of Education (ISCED), UNESCO defines three categories of secondary education:

- ***General education***

  Education which is mainly designed to lead participants to a better understanding of a subject or group of subjects, especially, but not necessarily, with a view to preparing them for other (additional) education at the same or a higher level. Successful completion of these programmes may or may not provide participants with a labour market relevant qualification at this level. Such programmes are typically school based. Programmes with a general orientation and not focused on a particular specialization should be classed in this category.

- ***Pre-vocational and pre-technical education***

  Education which is mainly designed to introduce participants to the working world and to prepare them for entry into technical or vocational education programmes. Successful completion of such programmes does not confer a labour market relevant vocational or technical qualification. For a programme to be considered as pre-vocational or pre-technical education, at least 25 per cent of its content must be vocational or technical. This minimum is needed to ensure that the vocational or technical subject is not simply one among many others.

- ***Vocational and technical education***

  Education which is mainly designed to lead participants to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation, trade or group of occupations or trades. Successful completion of such programmes leads to a labour market relevant vocational qualification recognized by the competent authorities of the country in which it is obtained.

Programmes in this category may be subdivided into two types:

- those which are primarily theoretically oriented, and
- those which are primarily practically oriented (UNESCO, 1997b).

The generic term used in this document is technical and vocational education (TVE) to describe the various forms of initial education and training provided to equip youth with employable skills. The focus is on secondary education-level courses – both school based and non-formal. However, when provided in the TVE sector, post-secondary vocational programmes are also discussed, particularly for French-speaking countries. In this context, initial education and training includes apprentices but not training programmes for workers or the unemployed. Yet, taking into account the increasingly multi-purpose nature of vocational schools, job-related training programmes are also reviewed when delivered by institutions primarily aimed towards initial training.

As far as possible, an effort was made to be consistent in drafting the study. But the authors are aware that, in some sections of the text, the terms TVET or VET may appear. This deviation from the standard term was accepted to acknowledge the concepts used in specific national systems.

It is to be noted that the terminology used by the original French model to describe technical and vocational education has been changing in recent years. The word 'technical' is tending to give way to the term 'technological', since this type of education prepares learners for higher education. The term 'vocational education' continues to refer to the acquisition of skills for specific occupations.

Taking into account this note on terminology, the report focuses on 10 countries, namely, Botswana, Côte d'Ivoire, Eritrea, Ghana, Kenya, Madagascar, Mali, Mozambique, Senegal and South Africa. However, at some points, other experiences have been taken into account, mainly from Benin, Mauritius, Tanzania, Togo and Zimbabwe.

4. Structure of the book and methodology

The book is divided into three parts. Part I forms an introductory review of the topic. It maps out the overall context, the main features of sub-Saharan TVE systems and provides a first understanding of donor policies which represent a key variable in the reconstruction and sustainability of training provision in Africa.

The second part reviews changes in French-speaking Africa with particular reference to four countries. It makes an attempt to relate the status and the development of TVE in French-speaking countries to the colonial legacy of the former French model and to its further developments in contemporary France. Considering the strong donor-driven nature of the transformation of the system in the studied countries, a specific chapter is devoted to the role of donor policies. A concluding section suggests possible lines for improving donor intervention.

Part III examines the transformation of TVE systems and policies in the other regions of sub-Saharan Africa, with special emphasis on six English-speaking and Portuguese-speaking countries. Chapter I provides an overview of governance structures, provision and labour market conditions. Chapter II focuses on four key instruments in TVE policy, namely organization and management patterns, delivery options and financing mechanisms. Also included is a review of the impact of HIV/AIDS on the sector and of emerging responses. The main lessons are summarized in the Conclusion.

The analysis conducted in Part I is based on a literature review. Part II summarizes the content of two country monographs (Côte d'Ivoire and Madagascar) and the outcomes of field investigation conducted by IIEP within the framework of this research (Mali, Senegal) or taking advantage of the opportunity offered by other IIEP activities in the sub-region (Benin, Togo). Part III is mainly based on five country monographs (Botswana, Eritrea, Ghana, Kenya, South Africa), partially complemented by country papers presented at an IIEP/SADC workshop held in Maputo in May 2001, and by other published sources.

Part I
Literature review

Introduction

The first part of the book is intended to provide a panoramic picture of public-sector TVE provision in sub-Saharan Africa. It is divided into three parts. The first part offers an overview of the current state of TVE systems in sub-Saharan Africa. As such it provides a comparative vision of TVE structures, processes and outcomes.

The second part outlines the emergence of a new policy agenda largely influenced by a sharp critique of state-run TVE systems in Africa. This new approach is built around the principles of reduced public involvement in provision, partnership in governance, increased reliance on market mechanisms being expected to lead to greater effectiveness (labour market relevance) and efficiency (user's choice). However, differences exist in the international community regarding the precise policy mix and the priority to be given to social objectives. At the sub-regional level, the policy debate within the CONFEMEN illustrates the interpretation of these new agendas to reform TVE systems. This chapter of the book also reviews ongoing reforms regarding partnership with enterprises. As such it seeks to provide a comprehensive vision of the dynamics presently reshaping TVE in the sub-region. Selected examples of innovative formulae or promising practices are also offered to illustrate the presentation, but the discussion of specific cases is mainly found in the other parts of the report.

The last chapter of this first introductory part considers international aid to TVE by looking at the policy and, when available, financial support of selected bilateral donors. Additional discussion of the influence of France in francophone Africa is provided in the second part.

Finally, concluding remarks outline some of the main issues and provisional outcomes of the review.

Chapter I

Main features of technical and vocational education systems in sub-Saharan Africa

1. Background

In order to place the dynamic of TVET systems and policies in sub-Saharan Africa in a proper perspective, it is necessary to review briefly the socio-economic environment and the educational profile of the concerned countries. These two dimensions obviously present particular challenges for TVET provision.

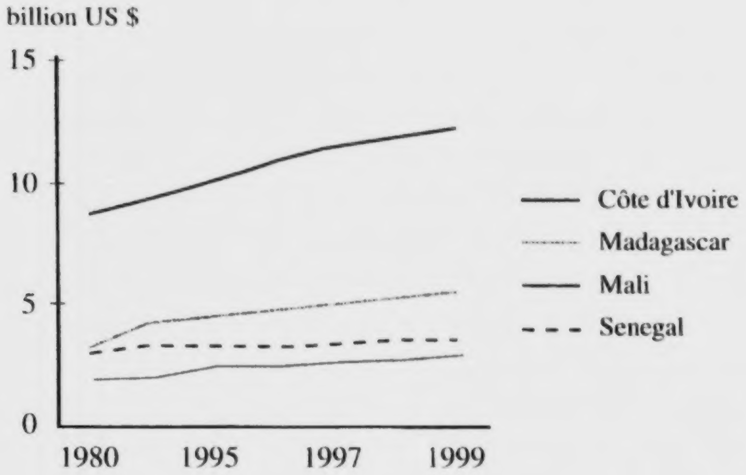
1.1 An era of disillusionment

Despite significant reforms undertaken during the 1990s, even earlier for some countries, sub-Saharan Africa has remained in very poor socio-economic health. Satisfactory individual performance of a few countries does not contradict the global picture. Confronting such reality has brought some observers to question the present capacity of the sub-continent to be an active actor in the twenty-first century (World Bank, 2000; Kabbaj, 2001).

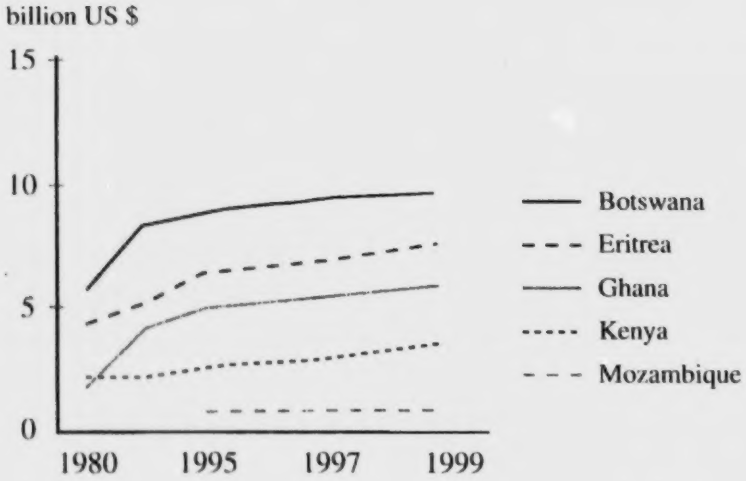
Between 1990 and 1994, the annual real growth rate only reached 1.1 per cent, resulting in a 1.5 per cent yearly decline in the per capita income. In the late 1990s many African countries recorded accelerated levels of growth – the annual real growth rate was 3.5 per cent – and some positive results on the poverty front – per capita income rose by 1 per cent annually. However, such results were not sufficient to reverse long-term marginalization and poverty trends (Morissey and Filatotchev, 2000). Output remains depressed and its growth is below the annual 5 per cent level required to prevent an increase in the number of poor people (World Bank/IMF statement, February 2001). Today the average income per capita – US$315, excluding South Africa – is lower than in 1960.

The GDP trends (1980-1999) *(see Figures 1* and *2)* for the 10 countries covered in this study reflect contrasted profiles. The four French-speaking countries of the group display a growth pattern below the performance of the other countries.

Figures 1 and 2. GDP trends in 10 selected SSA countries (constant 1995 US$ billion)



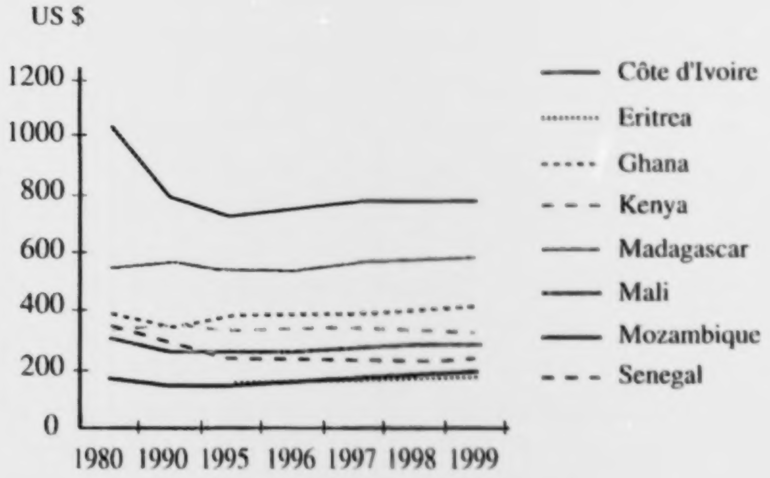
Source: World development indicators, 2001 (CDROM). Development data group, World Bank.



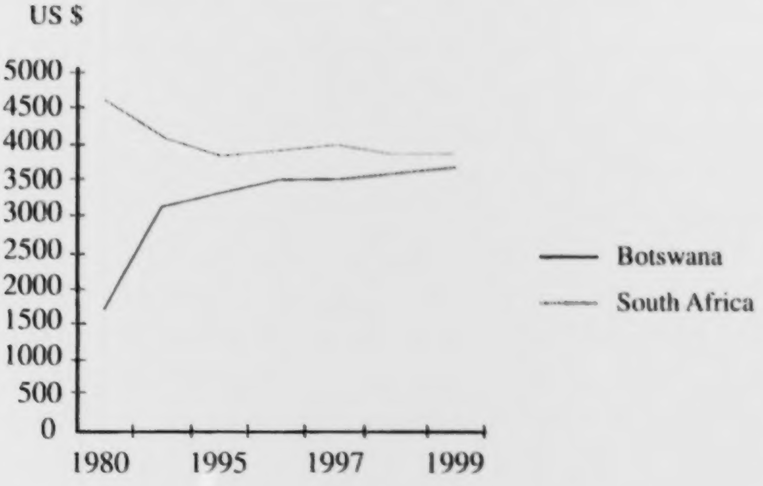
South Africa GDP was 164 billion US$ in 1999.
Source: World development indicators, 2001 (CDROM).
Development data group, World Bank.

Levels of development, measured by per capita income levels, have remained low in most cases (see *Figures 3* and *4*). Furthermore, apart from Botswana, progress has been very slow. Six countries out of ten seem to be trapped within the US$200–400 income range. Symbolizing the failure of many development efforts, last year Senegal joined the ranks of the least developed countries (LDCs).

Figures 3 and 4. GDP per capita (constant 1995 US$)



Source: World development indicators, 2001 (CDROM). Development data group, World Bank.



Source: World development indicators, 2001 (CDROM). Development data group, World Bank.

Such a profile has raised concerns about the capacity of sub-Saharan economies to benefit from globalization. In particular, growth in exports has been generally low, compared to the rest of the world, and Africa's share of world trade has decreased, representing about 2 per cent of the total. Efforts to diversify the structure of exports, and promote non-traditional exports, particularly manufactured goods, have been unsuccessful. High dependence on primary commodities often results in adverse terms of trade. For this reason export diversification represents an important challenge. Skills development forms part of a broader strategy to improve labour productivity and relative factor endowments.

Since the 1980s, structural adjustment has been at the top of the reform agenda in sub-Saharan Africa. However, there has been some debate on whether structural adjustment programmes have produced globally positive and sustainable results (Noorbakhsh and Paloni, 2001). A specific issue relates to the impact of economic liberalization and adjustment on manufacturing in Africa. However, while obviously trade liberalization leads to increased competition from imports, whether it results in 'de-industrialization' is a controversial matter (Bennell, 1998).

Trends in the sector allocation of the workforce in the 10 countries rather show an increase, of varying significance, in the percentage of workers employed in industry, except for Ghana (see *Table 1*). Of significance is the modest, if not marginal, size of the industrial labour force. Its relative size exceeds, or reaches, 10 per cent in only four countries (Botswana, Côte d'Ivoire, Ghana, South Africa). This labour market pattern needs to be kept in mind when considering TVET policies.

Table 1. Industrial structure of the labour force

	Agriculture			Industry			Services		
	1970	1980	1990	1970	1980	1990	1970	1980	1990
Botswana	82	64	46	5	10	20	13	26	33
Côte d'Ivoire	76	65	60	6	8	10	19	27	30
Eritrea	86	83	80	4	5	5	10	12	15
Ghana	60	61	59	15	13	13	25	25	28
Kenya	86	82	80	5	6	7	9	11	13
Madagascar	84	82	78	5	6	7	11	13	15
Mali	93	89	86	1	2	2	6	9	12
Mozambique	86	84	83	6	7	8	8	8	9
Senegal	83	81	77	6	6	8	12	13	16
South Africa	31	17	14	30	35	32	39	48	54

Source: African Development Indicators 2000 – World Bank, 2000c.

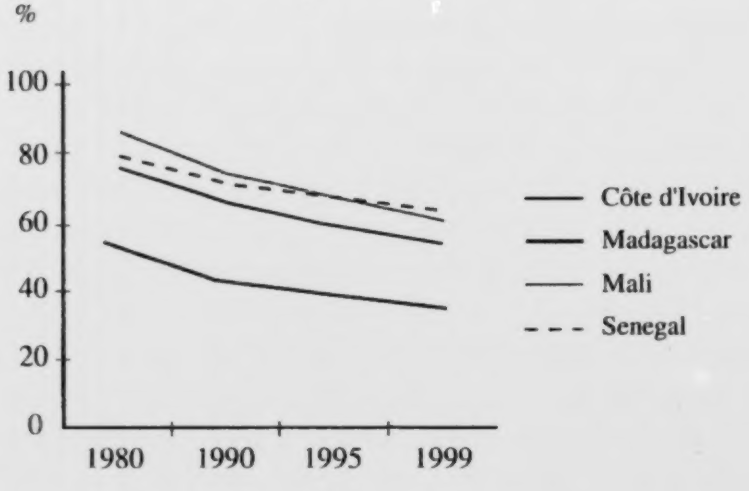
Armed conflicts, poor governance, corruption, decline in foreign aid, political instability and, for the recent period, high oil prices are among the forces explaining the poor health of sub-Saharan economies. Such a record also questions the economic and social reforms promoted by the international community for decades, including in the education sector. In a number of countries, education systems remain depressed and, under present circumstances, unable to meet the EFA targets.

1.2 Poor human capital formation

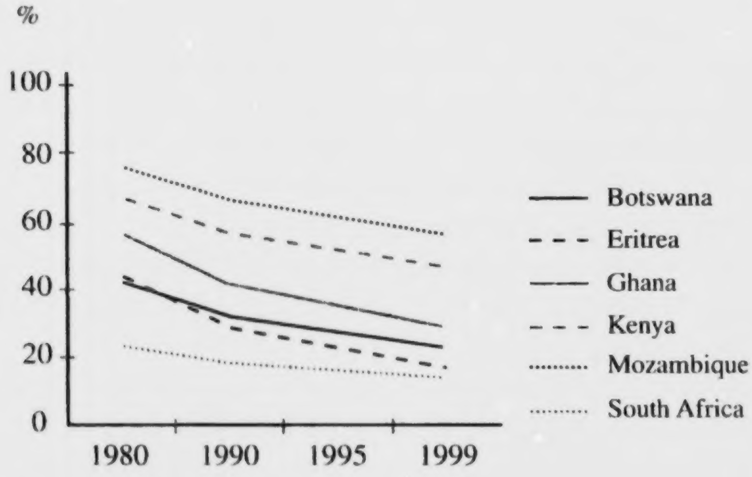
It is generally accepted that investments in basic education and secondary schooling usually have high returns in sub-Saharan countries. Data on adult illiteracy and school enrolment provide indications on the stock of educational human capital.

Trends in illiteracy rates for the 10 countries (see *Figures 5* and *6*) reflect a dynamic of progress. However, some of them still display a very high level of illiteracy, and in three out of four French-speaking countries more than half of the adult population was still illiterate in 1999.

Figures 5 and 6. Trends in illiteracy rates in 10 SSA countries (1980-1999)



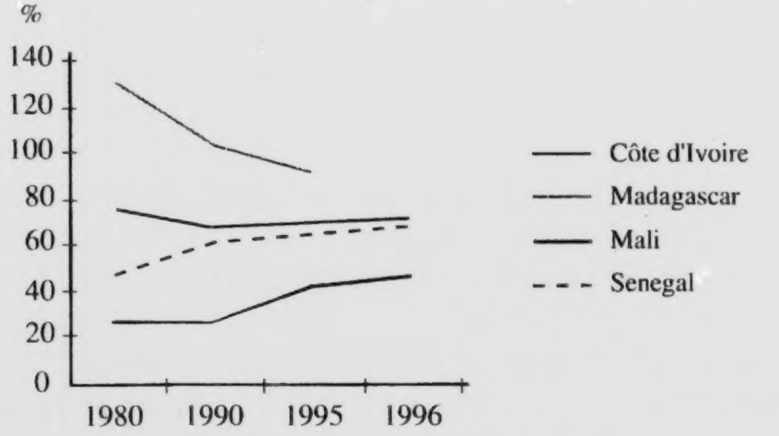
Source: World development indicators, 2001 (CDROM). Development data group, World Bank.



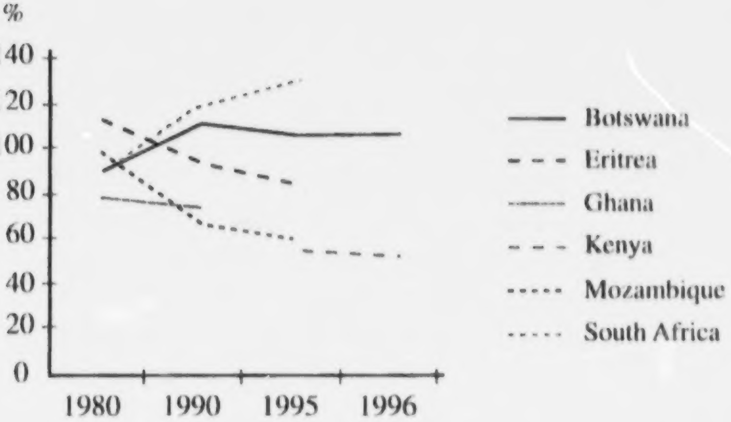
Source: World development indicators, 2001 (CDROM). Development data group, World Bank.

Looking at the gross enrolment rates in primary education for the same group of countries reveals that six out of ten experienced downward trends in the 1990s (see *Figures 7* and *8*). Although the interpretation of gross rates can be misleading, particularly when rates are over 100 per cent, such trends illustrate the challenge that meeting the EFA goals still represents for some countries. In such contexts increasing educational investment at the post-primary level, including for skill-development programmes, may remain problematic for a considerable time.

Figures 7 and 8. Enrolment trends in primary education (gross rates, 1980-1996)



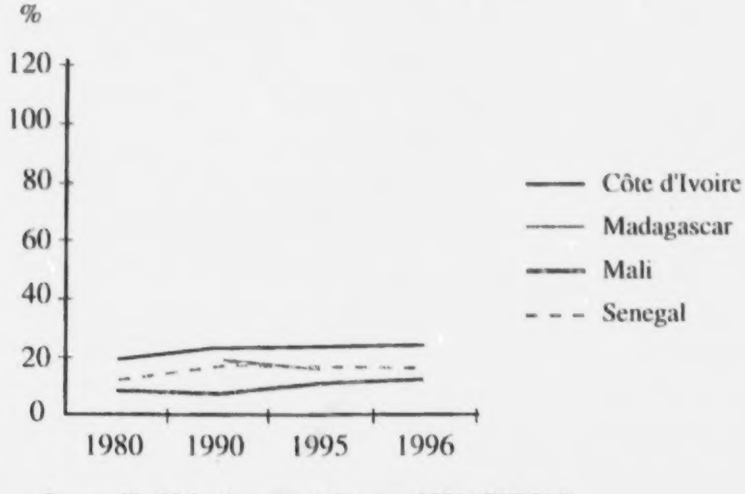
Source: World development indicators, 2001 (CDROM). Development data group, World Bank.



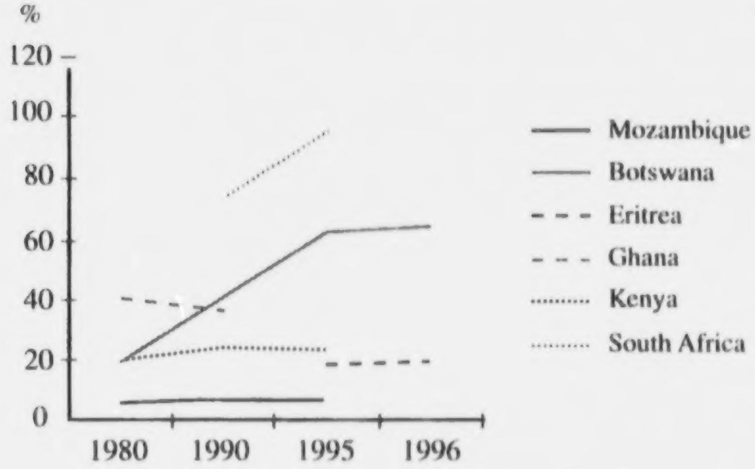
Source: World development indicators, 2001 (CDROM). Development data group, World Bank.

Enrolments at the secondary education level, at which TVE is usually provided, are still very modest (see *Figures 9* and *10*). Among the 10 countries studied, only two, Botswana and South Africa, have a gross enrolment rate over 50 per cent. Here the comparison between the French-speaking group and the other countries is striking: among the former, the share of the corresponding age group enrolled at this level remained very low in the 1990s for all. It also implies that skill formation through TVE only benefits a marginal portion of youth in the concerned French-speaking countries.

Figures 9 and 10. Enrolment trends in secondary education (gross rates, 1980-1996)



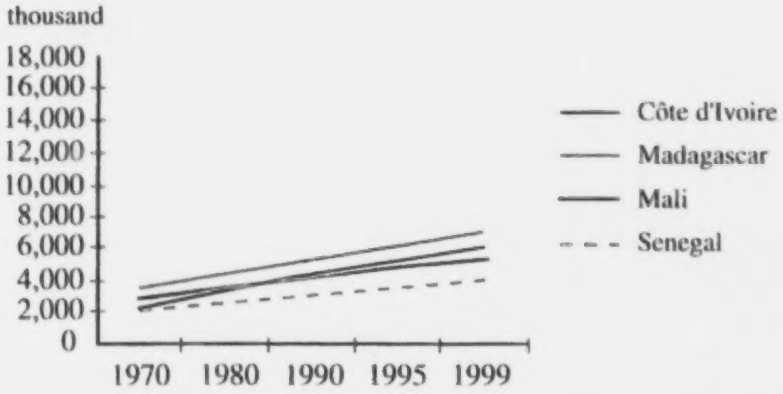
Source: World development indicators, 2001 (CDROM). Development data group, World Bank.



Source: World development indicators, 2001 (CDROM). Development data group, World Bank.

Beyond its implications for TVET policies, this educational profile necessarily affects the functioning of the labour market. However, apart from educational variables, the rapid increase of the labour force (see *Figures 11* and *12*) represents an immense socio-economic challenge for most sub-Saharan countries.

Figures 11 and 12. Labour force expansion in 10 countries (thousand)



Source: World development indicators, 2001 (CDROM). Development data group, World Bank.

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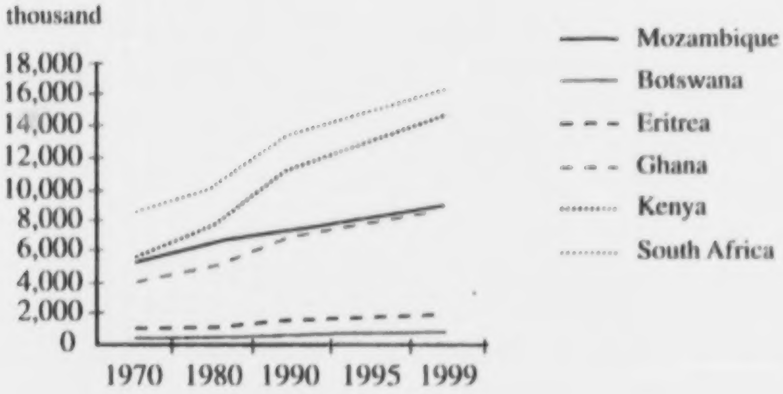


Source: World development indicators, 2001 (CDROM). Development data group, World Bank.

2. Forms of technical and vocational education

Models of technical and vocational education vary from country to country, and TVE programmes are provided by a broad assortment of institutions: technical and vocational schools offering short programmes, apprenticeship centres, polytechnics, university-level institutes of technology and so forth.

Various approaches have been adopted around the world to provide technical and vocational education within school systems. In sub-Saharan Africa, both the mode of functioning and the content of TVE systems are in most cases based on those of the former colonial power. The ILO's *World Employment Report* for 1998/1999 describes the technical and vocational education sector in these countries as 'school based', since pupils who wish to continue their schooling may remain in longer educational programmes, while others may attend vocational schools.

Some countries have 'pathways' to give the latter group access to higher education. However, in most countries, pupils who opt for vocational schools will arrive at a dead end as far as higher education is concerned.

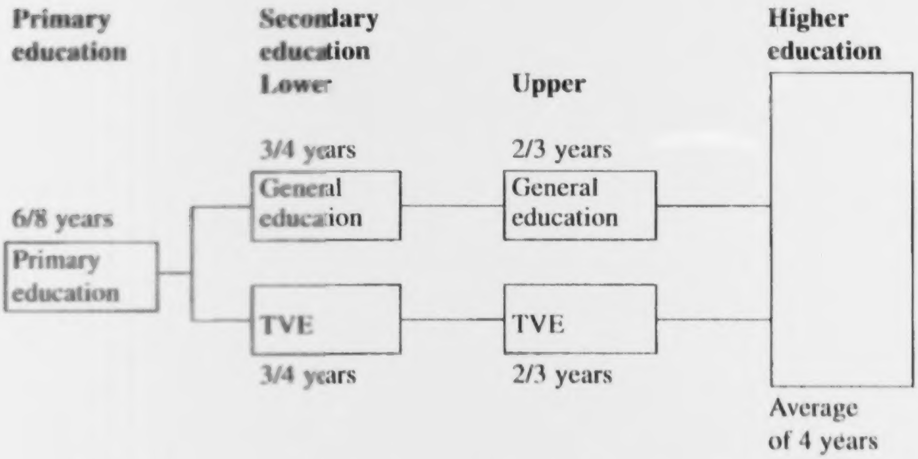
Generally speaking, a country's education system is divided into four levels:

- primary education, lasting six to eight years;
- lower-secondary education, lasting three or four years;
- upper-secondary education, lasting two to three years;
- higher education, lasting an average of four years.

The position occupied by technical and vocational education within each level varies from country to country, reflecting the role which each society assigns to TVE. In most cases, TVE forms a separate system that parallels the general education system, with its own institutions, teachers, programmes, etc.

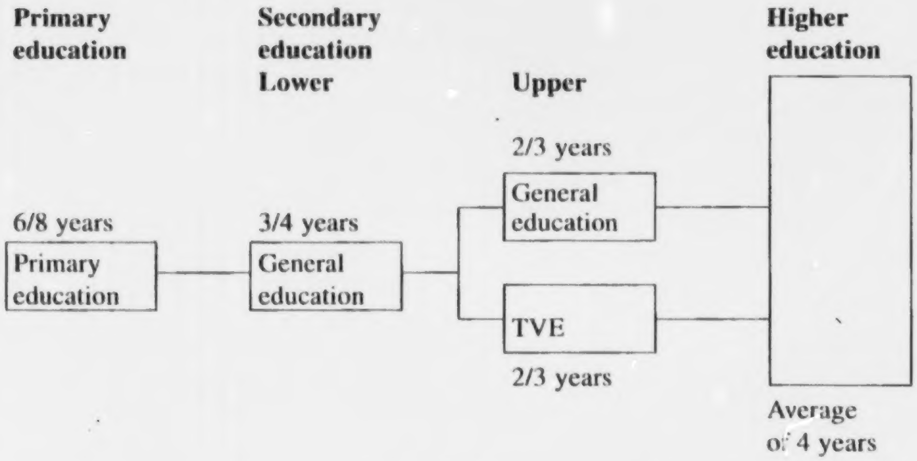
In Uganda, Burkina Faso, Congo and Kenya, among other countries, pupils may enter the technical education branch at the end of the primary cycle, as shown in *Diagram 1* below (UNEVOC, 1996).

Diagram 1


Primary education
Secondary education Lower
Upper
Higher education
3/4 years
2/3 years
6/8 years
Primary education
General education
General education
TVE
TVE
3/4 years
2/3 years
Average of 4 years

In other countries, such as Ghana, Nigeria, Guinea, Mali and Swaziland, this choice may be made at the end of junior secondary school, as shown in *Diagram 2* (UNEVOC, 1996).

Diagram 2



In some countries, such as Côte d'Ivoire and Cameroon, pupils enter TVE programmes after one or two years of lower-secondary schooling.

In considering these two categories, it may be asked whether the choice of educational branch is best made at the end of primary education or at a later stage. This is still an open debate. It is increasingly recognized that, in most SSA countries, the large number of pupils leaving school at the end of primary education – which often constitutes the majority – need some sort of preparation for the world of work. However, TVE may not be an appropriate and cost-effective response; in many countries informal apprenticeship constitutes the most common form of skill acquisition, and possibly the most efficient.

Requirements for entering secondary technical and vocational education vary from country to country. Pupils may be admitted automatically, on the basis of their own or their teachers' decision or, as in Benin, admission may be subject to competitive examinations which are open to first- and second-year pupils in general secondary education.

Concerning certification of technical and vocational education, diplomas are awarded after the examinations (usually theoretical) at the end of each stage.

In all of the countries considered, the duration of secondary technical and vocational education usually ranges from three to six years. However, some countries do make provision for short-term vocational training programmes, often managed by the Ministry of Labour.

It should be pointed out that in sub-Saharan Africa, many pupils leave school before the prescribed moment for choosing technical and vocational education. For this reason, countries such as Ghana, Senegal and Swaziland have decided to incorporate a measure of vocational content in general education programmes at the primary or lower-secondary level, in order to ready young people for wage employment or self-employment if they do not continue their schooling.Higher technical and vocational education comprises a broad range of courses offered in technical training institutes and university-level institutes of technology.

3. Governance of technical and vocational education

Traditionally, the organization of the education system, including technical and vocational education, is the responsibility of the state. It is thus up to the state to co-ordinate training policy with other government initiatives and decisions.

Which government Ministries or departments should oversee this branch of the education system?

There is no single answer to this question, since each country is in a different situation and has different concerns, and since responsibility for supervising the education system may shift according to the educational and political strategies of governments (Lannert *et al.*, 1999). It is, for example, the case of Senegal, where the Ministerial authority in charge of TVE changed seven times in thirty years (Kanoko, 2000).

Some countries have divided responsibility for TVE among several Ministries, usually the Ministry of Education (responsible for organizing and managing initial technical training in co-ordination with general education) and the Ministry of Labour (responsible for vocational training of skilled workers and craftsmen).

Others have created a Ministry for Technical Education and Vocational Training in order to ensure better co-ordination between technical education and vocational training and to raise skill levels. In Togo, which took this step in 1984, the Minister follows the opinions and recommendations of the *Conseil supérieur de la formation professionnelle*, a high-level advisory body whose membership includes the Ministers for Education and Labour as well as representatives of labour and employers.

Until recently, Côte d'Ivoire had a Ministry for Technical and Vocational Education, but since October 2000 technical education has been under the authority of the Education Ministry and vocational training under that of the Ministry of State with responsibility for vocational training and employment, which is attached to the Ministry for Labour, the Civil Service and Administrative Reform.

Even when there is a specific Ministry for Technical and Vocational Education, some vocational training programmes often remain under the supervision of sectoral Ministries: health, civil engineering, agriculture, transport, etc. (UNEVOC, 1996).

In Chad, a ministerial-level authority, the *Comité national pour l'éducation et la formation en liaison avec l'emploi* (CONEFE), was created in 1993 to co-ordinate education and training programmes. This body makes it possible for the various social and economic stakeholders to take part in setting policy for the TVE sub-sector, and hence to examine the linkages among employment, education and training (UNEVOC, 1997).

In Mauritius, an authority dedicated to vocational training was created in 1988: the Industrial and Vocational Training Board (IVTB). This body is managed and supervised by a governing board consisting of seven public-sector members, including representatives of the Ministry for Employment, Education and Industry, and seven private-sector members, elected for a maximum of two two-year terms. The primary aim of forming this board, and of making it autonomous, was to streamline administrative procedures and ensure rapid, effective decision-making. To implement its decisions, the board delegates its authority to small sub-committees (Atchoarena, 1996).

4. The objectives of technical and vocational education

The primary objective of technical and vocational education is to train a skilled labour force that can adapt to the requirements of the labour market. The TVE policies followed by the newly independent African countries were aimed at providing the managers and skilled labour which these countries needed to support the growth of the modern sector.

In the late 1970s, however, the African economies entered a period of recession and economic crisis. The growth of modern-sector employment slowed sharply as a result of spending cuts in the public sector and massive lay-offs to maintain productivity in the private sector. The consequence was a rapid rise in unemployment among young people, particularly those who had completed their secondary schooling. Gradually, the structure of employment in sub-Saharan Africa changed, with the rapidly growing informal sector absorbing much of the labour force.

Imported models of technical and vocational education, which were developed in a context of economic growth, proved incapable of supplying skilled labour that met the highly varied requirements of African production systems. A wave of criticism concerning the ineffectiveness and high cost of TVE began to be heard, and this form of education has been called into sharp question on the grounds that it is poorly suited to labour markets dominated by informal-sector employment.

Numerous criticisms of technical education and vocational training have been voiced over the past decade (World Bank, 1992; Cousin, 1992; Moura Castro, 1999). They may be summarized as follows:

- poor quality;
- very high cost;
- training not suited to actual socio-economic conditions;
- disregard of the informal sector's needs;
- disregard of the labour market and of the high unemployment rate among graduates.

In view of the changes in the labour market, the objectives of technical and vocational education have become more diverse: they are no longer simply economic but also social, including the fight against poverty and the integration of young people into the working world.

Two other major objectives must now be pursued:

- to train the workforce for self-employment;
- to raise the productivity of the informal sector (Caillods, 1994).

The fact that the system is ossified and impoverished makes it all the more difficult for technical and vocational education to take up these new challenges.

Criticism of technical and vocational education has led to cuts in the volume of training provided in public institutions and to shifting more of the responsibility for providing initial vocational training to enterprises and private institutions (Middleton and Demsky, 1988).

5. The weight of technical education in the education system

Technical and vocational education generally occupies a small, if not marginal, position in the school systems of sub-Saharan Africa (see *Tables 2* and *3*). *Table 3* presents change in TVE enrolments as a percentage of enrolments in secondary education. Although useful, this table must be interpreted with caution. The complexity of TVE systems, involving most

48

of the time different governing authorities, often results in several faults of statistics. Problems of data collection at the national level and lack of consistency across countries make comparative analysis difficult.

Field investigation conducted by IIEP in December 2000 in Senegal revealed several problems both in terms of coverage and classification. Inadequate data-collection processes result in many, if not most, private institutions and several vocational institutions escaping the school census. In addition, lack of proper classification makes it impossible to analyze precisely the various sub-components of vocational education. As a result, the official statistics most probably largely underestimate enrolment in TVE.

Table 2. Enrolments in secondary technical and vocational education

Year	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996
Benin	474	1,151	5,974	6,495	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Botswana	1,009	1,699	1,800	2,784	3,514	2,803	3,213	3,710	4,093	6,947	n/a
Burkina Faso	1,577	2,669	3,871	4,276	6,852	8,022	8,379	8,808	n/a	n/a	n/a
Cameroon	17,400	36,262	62,674	83,209	90,028	91,207	n/a	91,904	91,779	n/a	n/a
Chad	1,028	714	n/a	2,896	3,093	3,310	n/a	3,247	2,764	2,120	2,153
Congo	3,348	7,129	16,933	23,342	12,278	12,485	n/a	19,852	25,191	n/a	n/a
Côte d'Ivoire	5,123	15,758	21,296	22,861	n/a	n/a	n/a	8,882	11,037	n/a	n/a
Eritrea	n/a	n/a	n/a	n/a	333	480	537	589	819	n/a	674
Ethiopia	6,020	n/a	n/a	4,969	3,347	2,674	2,589	2,605	2,634	2,738	2,924
Gabon	1,608	2,450	5,530	8,656	n/a	n/a	8,477	n/a	9,209	7,588	n/a
Guinea	2,013	1,260		5,368	8,202	n/a	7,710	6,589	n/a	4,646	n/a
Lesotho	619	547	1,236	1,263	1,560	1,600	703	672	784	719	678
Malawi	236	529	647	560	780	840	863	1,007	1,080	1,054	n/a
Mali	3,386	5,008	n/a	n/a	10,538	12,129	9,476	13,380	18,457	17,906	19,426
Mauritania	n/a	n/a	1,004	1,854	800	1,030	1,172	1,129	1,218	1,414	n/a
Mozambique	15,031	n/a	12,704	11,643	9,932	9,729	9,784	11,644	13,816	14,582	n/a
Namibia	n/a	n/a	n/a	n/a	598	875	719	589	136	96	82
Niger	188	233	521	615	843	796	788	n/a	n/a	781	805
Senegal	5,447	8,182	9,932	8,770	6,435	7,571	7,301	n/a	5,461	4,058	4,615
South Africa	n/a	n/a	n/a	n/a	41,081	36,419	n/a	n/a	47,801	n/a	n/a
Togo	5,447	8,182	9,932	8,770	6,435	7,571	7,301		5,461	4,058	4,615
Uganda	3,557	3,296	3,441	6,932	8,549	10,889	13,603	12,791	12,552	13,360	n/a

Source: UNESCO Statistical Yearbook, 1999.
n/a: not available.

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Table 3. Percentage of TVE enrolments in secondary education

Year	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996
	%	%	%	%	%	%	%	%	%	%	%
Benin	2.7	2.7	6.7	6.1	7.5	n/a	n/a	n/a	n/a	n/a	n/a
Botswana	20.5	12.3	8.9	8.0	5.8	3.7	4.1	4.2	4.5	6.3	n/a
Burkina Faso	15.2	16.9	14.2	8.0	7.0	7.6	7.3	7.1	n/a	n/a	n/a
Cameroon	23.7	25.4	27.0	24.5	18.0	17.1	n/a	16.7	16.6	n/a	n/a
Chad	10.1	4.5	n/a	6.3	4.9	4.3	3.5	4.4	3.2	2.3	2.2
Congo	9.9	7.0	9.1	10.6	6.7	6.5	8.1	9.4	n/a	11.7	n/a
Côte d'Ivoire	7.5	13.3	9.7	8.1	7.6	7.2	6.8	6.9	6.8	n/a	n/a
Eritrea	-	-	-	-	0.6	0.9	0.9	0.9	1.1	n/a	0.8
Ethiopia	4.5	n/a	n/a	0.8	0.4	0.3	0.4	0.4	0.4	0.3	0.3
Gabon	16.3	11.1	21.7	23.1	n/a	16.5	n/a	n/a	14.0	9.4	n/a
Guinea	3.3	1.8		5.8	9.8	n/a	7.3	5.7	n/a	3.5	n/a
Lesotho	9.3	3.4	5.0	3.4	3.3	3.3	1.3	1.2	1.3	1.1	1.0
Malawi	1.8	2.8	2.7	1.5	1.3	1.2	1.2	1.1	1.0	0.8	n/a
Mali	10.2	9.4	n/a	n/a	12.6	12.4	9.3	11.1	13.2	11.9	11.6
Mauritania	n/a	n/a	4.7	5.3	2.2	2.6	2.8	2.5	2.5	2.8	n/a
Mozambique	36.0	n/a	n/a	7.9	6.4	6.2	6.3	7.3	8.4	8.1	n/a
Namibia	1.0	1.2	0.9	0.6	0.1	0.1	0.1	0.1	0.1	n/a	n/a
Niger	2.9	1.7	1.4	1.2	1.1	1.1	1.0	0.9	n/a	0.9	0.8
Senegal	9.3	10.5	10.6	6.8	3.6	4.0	3.9	n/a	n/a	2.6	1.9
South Africa	n/a	n/a	n/a	n/a	1.5	1.2	n/a	n/a	1.3	n/a	n/a
Togo	9.6	8.0	5.2	5.7	6.7	5.9	n/a	6.1	5.0	4.6	5.1
Uganda	14.6	12.1	7.1	6.0	4.6	5.0	5.0	4.7	4.8	5.0	n/a

Source: UNESCO Statistical Yearbook, 1999.
n/a: not available.

A number of countries in sub-Saharan Africa are not listed owing to the lack of information on their TVE enrolments.

These figures from the UNESCO Statistical Yearbook for 1999 show that the weight of technical and vocational education varies considerably from country to country. An overall view of the table reveals that the share of technical and vocational education has fallen in all of the countries for which such data are available. This general decline confirms the failure and inefficiency of this sub-sector and the uncertainty as to its effectiveness in training a labour force with skills matching the requirements of the labour market.

The countries may be grouped as follows:

- Countries where the proportion of TVE enrolments in general secondary education is under 2 per cent.

The technical and vocational education sector in Eritrea, Ethiopia, Malawi, Namibia, Niger and South Africa has long been only a small part of general secondary education, with very few enrolments.

In these English-speaking countries, this type of education did not receive sustained attention from governments, for reasons which are complex and which vary from one country to another. In Malawi, for example, where 90 per cent of the population lives in rural areas, the entire school system is relatively poor and priority has been given to developing primary schools. Niger is one of the African countries where the enrolment rate for children aged 7-12 years is still very low (29 per cent).

Another group of countries where the proportion of TVE enrolments is under 2 per cent – Lesotho, Chad, and Senegal, where the TVE shares are 1 per cent, 2.2 per cent and 1.9 per cent respectively – stands apart from the first in that these low enrolment rates date only from the mid-1990s. The change of policy with respect to technical and vocational education is the result of this sector's ineffectiveness in training skilled workers and of budget restrictions which forced governments to make hard choices concerning the funding of the various levels and types of education.

- Countries where the proportion of TVE enrolments in general secondary education has been between 5 per cent and 9 per cent over the past few years.

The countries concerned are Botswana, Burkina Faso, Togo, Mozambique, Uganda and Côte d'Ivoire. In these cases, the TVE share has been relatively stable over the long term.

- Countries where the proportion of TVE enrolments in general secondary education is over 10 per cent.

The countries concerned include Cameroon, Mali, Gabon and Congo. In Mali, the share of technical and vocational education has stood at about 10-11 per cent since the early 1970s, reflecting the Malian Government's attachment to this type of education, which it considers an important factor in the development of an industrial fabric. When the 'Etats généraux de l'Education' were held in 1990, the Malian Government took several initiatives to raise both the quality of TVE and the number of TVE institutions (BREDA, 1994). An effort was made to open the TVET schools to the world by involving them in the provision of job-related training. Moreover, the Malian Government wishes to increase private-sector participation in the management and the financing of technical and vocational education. The Mali experience will be further discussed below.

In Cameroon, technical and vocational education formed a substantial part of the overall secondary education system, with a 26.8 per cent share of enrolments in 1980. Beginning in the late 1980s, however, its share began to decrease, falling to 16.6 per cent in 1994.

The share of technical and vocational education in Gabon also fell sharply over time, from 19.6 per cent in 1985 to 9.4 per cent in 1995.

In Congo, the TVE share has fluctuated somewhat over the past 30 years, reaching a high of 11.7 per cent in 1996 and a low of 6.5 per cent in 1991, which confirms the failure of the TVE effort and the disillusionment in the 'people's school' which was supposed to train the qualified personnel needed for the development of Congo's economy.

Generally speaking, the low proportion of technical and vocational education in general secondary education is partly due to the public's attitude towards this branch, which is usually regarded as leading to low-status occupations ('parity of esteem issue'). Moreover, the pupils who enrol in this kind of education are considered to be those who have failed in general education. The result is a contradiction between the generally negative image of technical and vocational education and the strategic role it is supposed to play in the race for international competitiveness, particularly in the new age of globalization (Atchoarena and Caillods, 1999).

As already mentioned, one should be cautious when using Ministry of Education statistics on TVE enrolments. In the context of poorly developed information systems, data on school-based TVE, for both public and private institutions, can be overlooked. Furthermore, the institutional fragmentation of the sector makes it difficult to obtain consolidated data taking into account delivery systems managed by various government bodies. As a result available data seem to be biased downward.

It remains true however that TVE only reaches a particularly small part of the school-age population because secondary education is not well developed in most countries of sub-Saharan Africa. In many cases, pupils who choose the technical education branch have already passed the difficult hurdle of admission to secondary schooling. In many countries, the vast majority of pupils who do not have access to secondary education have only one source of vocational training: traditional apprenticeship.

6. The position of girls in technical and vocational education

Girls are under-represented in technical and vocational education, as in all other sub-sectors of the education system. Gender inequality where access to technical and vocational education is concerned reflects a gender-based division of labour, and the low enrolment rates for girls reflect the status that societies attribute to women. The division of responsibilities and tasks between men and women is based on a complex system of long-standing traditions and attitudes. Girls who continue their schooling in the TVE branch therefore choose specialities leading to the jobs typically occupied by women, such as hairdressing, secretarial work, health care, hotel work, garment manufacture and home economics. Specialities which are geared more towards the industrial sector, such as mechanics, electricity and civil engineering, are traditionally reserved for boys (BREDA, 1999).

The gender inequalities in technical and vocational education imply that boys and girls are not prepared equally for integration into the labour market. Although women are employed in all sectors of activity in African economies, the force of stereotypes and the gender structure of the labour market confine them to low-skilled activities, be it in agriculture (the main economic activity of African women), the informal sector or the modern sector, particularly the civil service.

A few statistics are needed to provide a clearer idea of this differential process of skill acquisition between men and women. Countries where women account for under 15 per cent of TVE enrolments include Niger, Ethiopia, Uganda, Eritrea, Malawi and Namibia. For this group of countries, the share of TVE enrolments in overall secondary enrolments is less than 2 per cent, and the proportion of girls is low not only in technical and vocational education but throughout the education system. In these countries, the high illiteracy rate among women and their generally lower level of educational attainment restrict them to low-skilled jobs.

In Ethiopia, for example, women have few opportunities for wage-earning employment. The great majority of women work in agriculture and livestock raising or in informal-sector jobs requiring no technical skills.

In Namibia, girls account for only 11.8 per cent of total enrolments in secondary TVE institutions. Most of these are in the garment manufacture and secretarial branches.

In Malawi, girls are hardly represented at all in primary and lower-secondary technical schools, making up an average of 4.6 per cent of such enrolments from 1989 to 1993 (UNESCO Statistical Yearbook, 1999). Malawi's is a highly traditional society where 90 per cent of the population lives in rural areas. Women's participation rate in the formal sector is only 15 per cent, mainly in jobs requiring low qualifications.

In some other countries such as Benin, Mauritania, Mozambique, Senegal, Togo, Botswana, Chad and Guinea, the proportion of girls in technical and vocational education stood at about 30-35 per cent in 1995/96. These figures should be regarded with caution, however, because only a low percentage of girls reach the secondary level.

In sub-Saharan Africa, as in many other regions of the world, patterns of female school enrolment are slow to change, even though it is widely recognized that women should have the same educational opportunities available to them as men (UNESCO, Revised Recommendation concerning Technical and Vocational Education, 1974). In this perspective, governments have for several years been implementing reforms to establish equality of opportunity between gender. The effects of this process will be felt only in the long term, as it is necessary to change ingrained attitudes concerning women's place and role in society.

7. Public financing of technical and vocational education

Today, governments in Africa are forced to make difficult choices to control spending on education, which absorbs a large share of overall government budget.

It can be seen from *Table 4* that the percentage of public education expenditures devoted to TVE varies considerably from country to country, ranging between the two extreme cases of Ethiopia and Gabon where this percentage was 0.9 per cent in 1993 and 12.7 per cent in 1992, respectively (ILO Annual Report, 1998/1999). The low level of TVE spending in Ethiopia is explained by the very small proportion of this type of education in secondary education (0.3 per cent in 1994). In Gabon, in contrast, public expenditures on TVE are relatively large when considering the size of the sub-sector (14 per cent in 1994 of secondary school enrolment). This pattern results in very high levels of spending per pupil (US$1,821, in 1990 dollars, for 1992).

Table 4. Percentage of technical and vocational education expenditures in total education expenditures

Country	%	Year	Country	%	Year
Benin	3.3	1995	Guinea	7.5	1993
Botswana	5.5	1991	Lesotho	3.3	1994
Chad	2.0	1994	Malawi	1.1	1992
Congo	4.9	1980	Mali	9.1	1995
Côte d'Ivoire	4.8	1994	Mauritania	2.3	1995
Eritrea	1.6	1994	Mozambique	6.2	1990
Ethiopia	0.9	1993	Namibia	2.0	1995
Gabon	12.7	1992	Senegal	2.7	1990
Ghana	4.9	1990	Togo	3.7	1994

Source: ILO, *World Employment Report*, 1998/1999.

Comparison of *Table 4* with *Table 5*, which presents public current expenditures per TVE pupil, shows that on average, although the share of spending on this education sub-sector is relatively low in absolute terms, it is relatively high when expressed in unit cost. The reason is that public current expenditures per TVE pupil at the secondary level are much higher, by a factor of 3 to 4, than those for general education. The extreme cases are Swaziland, Zambia, Ethiopia and Mozambique, although in the latter, spending is relatively low compared to the other countries.

Table 5. Public current expenditures per TVE pupil

Country	Expenditures per TVE pupil in 1990 US$	Ratio TVE expenditures/ general secondary education expenditures	Year
Botswana	3,075	2.92	1991
Chad	211	3.7	1991
Ethiopia	475	9.13	1990
Gabon	1,821	1.56	1992
Ghana	316	5.96	1991
Guinea	605	5.35	1993
Lesotho	978	4.1	1993
Malawi	763	4.95	1993
Mauritania	730	2.9	1993
Mozambique	275	13.75	1990
Senegal	935	3.44	1993
Togo	215	0.8	1992

Source: ADEA, 1995.

Considering the low performance and relevance of TVE, questions may be raised as to both the utility of the spending allocated to this sector and the methods that should be implemented to reduce its cost. The lack of effectiveness and efficiency[2] of technical and vocational education is the reason for current efforts to reform this education sector to bring its dynamics more into line with the requirements of the labour market.

Generally speaking, the high cost of technical and vocational education is due to a smaller class size and to the need for expensive equipment, facilities and teaching materials. Without such equipment, training yields poor results and graduates are unable to find jobs. Periods of tight budgetary policies thus lead to a vicious circle, since the quality of training falls and graduates' difficulties in finding jobs grow more acute (Moura Castro, 1999).

According to the IIEP work on the *Compte économique général de l'éducation au Bénin*, average spending per pupil in Benin's public TVE institutions amounted to 333,612 CFA francs in 1996, or 7.6 times the amount (43,947 CFA francs) for public institutions in the general education sector (Péano and Oulai, 1999). A breakdown of expenditures by public secondary institutions is presented in *Table 6*.

Table 6. Breakdown of current expenditures by public secondary institutions in Benin, 1996 (%)

Expenditures	**General secondary** %	**TVE secondary** %
Teachers' salaries	75	46
Salaries of non-teaching staff	16	24
Teaching supplies	4	7
Other operating expenditures	5	23
Total	100.0 (4,982 millions of CFA francs)	100.0 (962 millions of CFA francs)

Source: Péano and Oulai, 1999.

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[2] 'Effectiveness' is the relationship between the objective pursued and the result actually achieved. In the case of TVE, the objective is to give every pupil the possibility of finding gainful employment and carrying out in optimal fashion the tasks required by his or her employer. Efficiency has to do with the ratio between inputs and output, i.e. the TVE sub-sector must make better use of the resources it has (Fluitman, 1999).

Examination of this table reveals that non-teaching staff and operating expenditures represent a significant share of total expenditures in TVE institutions, compared to ordinary secondary schools. capital expenditures – i.e. expenditures on infrastructure, facilities and equipment – make up a very high percentage of total spending by TVE institutions, although it should be pointed out that technical education institutions oriented towards the services sector have substantially lower investment requirements than those providing industrial skills In contrast, the share of expenditure devoted to teachers' salaries is lower in TVE than in general education.

In order to find alternative sources of finance reduce spending by TVE institutions, it has been recommended for the past 10 years, first, that closer relationships should be developed with the business community, for example through company internships and sandwich training, and, second, that the funding of this type of education should be diversified by turning to private sources of finance.

In the years following independence, technical and vocational education in Africa was financed almost exclusively by governments and by multilateral and bilateral aid agencies, which regarded TVE as a potential factor of modernization for African societies. For example, from 1964 to 1969, secondary technical education was the second-largest recipient of World Bank loans for education, accounting for nearly 20 per cent of the total amount lent.

The technical education share of World Bank education loans was cut to 10 per cent in the late 1970s and has decreased steadily since then, falling to 6 per cent in the 1993-1998 period (Atchoarena and Caillods, 1999).

8. The integration of young people into the labour market

Many questions have been raised about whether technical and vocational education in Africa is suited to the real requirements of the productive system. Many observers are pointing to the unemployment rate among graduates and the need for a better understanding of the school-to-work transition.

Integration in the labour market is defined as 'a complex process that leads a person with no work experience to occupy a stable position in the employment system' (Fourcade; Paul; Vernières, 1994). Research on the school-to-work transition in Africa is somewhat scarce. In general, although some information about the number of TVE pupils is available, most countries have no statistics on graduates' level of integration into the labour market, and the few surveys which are available date from the mid-1980s. A brief overview of the results of these surveys will provide a better understanding of the new challenges facing technical and vocational education in sub-Saharan Africa.

The school-to-work transition takes on different forms according to the educational level of the individual, and unemployment among technical school graduates is relatively high in certain countries, for example, 29 per cent in Togo and 49 per cent in Cameroon in 1985; 50 per cent in Senegal and Niger in 1986/1987 (Fourcade *et al.*, 1994). Generally speaking, the informal sector plays an important part in the integration of graduates; in Senegal, 43 per cent of the holders of the *certificat d'aptitude professionnelle* (CAP) do not have permanent jobs. A tracer study conducted in 1996 in two regions in Mali showed that the employment rate of TVE graduates, 36 months after graduation, was 44 per cent (this study is further discussed below). This result confirmed the outcome of previous surveys indicating a low level of labour market integration of the annual flow of TVE graduates, both at the secondary (CAP) and tertiary (BTS) levels (Orivel *et al.*, 1996). The results of a reverse tracer study carried out in Mozambique in 1993 on 1990 and 1991 technical school graduates produced contrasted results according to the level of training (Ziderman, 1997). For basic technical education the results were very poor – over 50 per cent unemployment rate – resulting from low-quality training, depressed labour market demand and a strong graduates' preference for continuing study. The findings were more favourable at the intermediate level, the vast majority of graduates being employed. However, one-third were found working in occupations unrelated to the training received.

The assessment of the external efficiency of TVE is very much dependent on country-specific and contextual variables. Not surprisingly, other studies report better results. A survey conducted in 1990 on artisan training in Zimbabwe reported a very low level of unemployment – below 7 per cent – among craft apprenticeship (1985 and 1989) graduates. Interestingly, the employment performance was very dependent on training modes, school-based artisans' training displaying a much higher unemployment rate – 29 per cent (Bennell, 1993). Similarly, a survey conducted at the same time, also in Zimbabwe, among graduates from selected institutions – youth training centres and a rural training centre – found that most of the graduates had found a job in the formal sector. However, there were marked differences in employment patterns according to area of training (Bennell and Nyakonda, 1992).

In many countries, the civil service was a major employer of TVE graduates. The 1985 survey on the school-to-work transition in Mali shows that half of all CAP holders were employed in the public sector (Fourcade *et al.*, 1994). This sector played a strategic role in youth employment. The public-sector hiring freeze that structural adjustment policies brought to sub-Saharan Africa was a major cause of the worsening of the conditions of youth integration into the labour market. However, public-sector restructuring varies across countries. A tracer study conducted by IIEP in 1997 in Eritrea showed that although the employment rate of technical school graduates reached 90 per cent, most of them (72 per cent) were working in the public sector (Atchoarena and Tekie, 1997).

Job opportunities for TVE graduates have changed and become more uncertain as the focus has shifted to the formal and informal private sector. Enterprises have more specialized requirements concerning the qualifications of the workforce, and this entails a redefinition of technical and vocational education.

Many African countries consider today that the infrastructure and equipment of TVE institutions are for the most part obsolete, inadequate and unable to adapt to private-sector expectations and technological change. No country, however, can forego the effort to train young people in the technical skills needed to master the occupations of modern economies. Imports of new equipment, which workers must know how to use and maintain, necessitate an effort to save this training system. It is for this reason that both the international community and African governments have focused their attention on the question of how to reform technical and vocational education.

Chapter II

Revisiting technical and vocational education: critique and new directions

In view of the high unemployment rate among graduates, the growing share of the working population employed in the informal sector and the limited job prospects in the modern economy, the international community and African education ministers are giving consideration to ways of achieving greater efficiency in technical education.

1. The international community

1.1 The World Bank: encouraging in-plant training and private provision

The World Bank's position on technical and vocational education changed radically in the mid-1980s, and the effectiveness of this type of education was severely challenged. The Bank's 1991 policy paper on TVE offers guidelines to support this sector to develop according to the needs of the economy.

The World Bank's recommendations may be summarized as follows (World Bank, 1991):

- encouraging private training programmes:
  - create a favourable environment for private investment,
  - encourage in-firm training,
  - ease regulatory controls on the private supply of education;

- increasing the effectiveness and efficiency of public training programmes:
  - aim for specific objectives,
  - adapt to change on the market,
  - grant autonomy to training institutions,
  - use available resources more efficiently,
  - get employers involved in management of the training system,
  - diversify sources of finance.

According to the Bank, the most effective means of providing labour with the qualifications needed for employment and for increased productivity is to expand the private training sector, in terms of both companies' in-house training systems and private training institutions. It is assumed that private institutions, having to be both profitable and effective to survive in a competitive environment, are in a better position to provide good-quality, market-relevant training. The rules of the free market will gradually force them to take account of the changing job opportunities for their future graduates and to adapt their enrolment policies and programmes of study to the needs of the labour market. The reputation of TVE institutions will depend on their ability to produce qualified young people who will be immediately operational in the workplace.

However, the development of a private TVE sector does not entail the elimination of the public sector. But the role of the state must change to allow institutions to adapt more readily to the requirements of the labour market.

Moreover, the budget-tightening process in all of the countries of sub-Saharan Africa is obliging governments to establish priorities among the various sub-sectors within the education system. At a time when the effectiveness of technical and vocational education is often being questioned, many governments have considered that the first priority is to expand and consolidate the general education system at the primary and secondary levels to raise the productivity of the workforce. As a result, the expansion of technical and vocational education will require finding additional sources of financing and establishing new partnerships, particularly with the private sector.

It should be noted that the latest World Bank report on education sector strategy hardly mentions the technical and vocational education sub-sector (World Bank, 1999).

1.2 The International Labour Office: partnership for socially sensitive markets

In its *World Employment Report* for 1998/1999, the International Labour Office (ILO) reviews the role of training in the context of globalization. The document also explores ways of improving the performance and relevance of TVE systems.

The ILO defines a training system as follows: "Training may be defined as the systematic preparation of individuals to improve their capacity to perform market and socially valued functions, i.e. it comprises the full continuum of education, skill formation processes and training activities" (ILO, 1998).

In a context of globalization and persistent unemployment, a country's economic success depends increasingly on access to new technologies and on the skills of its workforce. Training systems are under pressure because technological change, the shortening of the product cycle and new forms of workplace organization are changing the context in which decisions about training are made. The labour force must now meet ever more stringent national and international qualification requirements (ILO, 1999). In this context, basic education is regarded as a necessary but not sufficient condition for adapting training to the challenges of economic globalization.

To improve the return on technical and vocational education, the ILO recommends:

- promotion of partnerships with business;
- provision of incentives for co-financing;
- creation of skill-based certification systems;
- decentralization and encouragement to the development of the private sector.

To this end, the ILO recommends a change in the role of the state, namely a shift from provision of training to regulation of the training market. The ILO also emphasizes the need for initiatives in favour of specific groups and sectors, such as informal-sector workers (skilled craftsmen and apprentices), women, and various groups at risk such as unemployed young people, the long-term unemployed, older workers threatened with exclusion from the labour market, and workers with disabilities.

The training agenda of the ILO was further discussed and specified during the 2000 ILO conference. It resulted in specific conclusions concerning human resources training and development. The priority of the new InFocus Programme on skills, knowledge and employability for the 2002-2003 period includes, among others, a database on best practices in developing national qualification frameworks and the development of tools to promote best practices in the training of women.[3]

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[3] Information on the new recommendation on human resources training and development can be found on http://www.ilo.org

1.3 UNESCO: Technical and vocational education in the context of lifelong learning policies

The Second International Congress on Technical and Vocational Education, held in Seoul in 1999, was intended to provide UNESCO Member States with a framework for redefining TVE policy to address their employment problems and to ensure coverage of the new technologies which can help to raise productivity. The pace of innovation requires continual and lifelong updating of both individual and collective skills. This imperative was reflected in the theme of the Seoul Congress: 'Lifelong learning and training: a bridge to the future'.

Besides the search for competitiveness, the Congress pointed out that technical and vocational education could also be a means of delivering education to youth that are excluded from the formal education system. To that effect, increased consideration should be given to the small and medium-sized enterprises, often in the informal sector. From the standpoint of integrating them into the workforce, renewed attention would be paid to the introduction of some sort of vocationalization during the period of general education, so that children would be exposed to a range of experiences and skills from everyday life.

To ensure that both the human element and the occupational aspects of technical education are given consideration, it was recommended that educational mechanisms and systems be designed with two major objectives in mind: learning and work.

According to the conclusions of the Seoul Congress, the divide between the education system and working life is one of the major weaknesses of TVE systems in developing countries (IIEP, 1999).

The proposed main priorities for UNESCO's future TVE strategy for all Member States were as follows:

- Strengthening TVE as an integral component of lifelong learning:
  - incorporate vocational subjects in general education programmes;
  - establish more linkages between TVE and the other education sectors;
  - improve co-ordination between the formal education and informal training systems;
  - encourage private-sector participation.

- Orienting TVE towards sustainable development:
  - introduce new subjects in TVE programmes (environmental

problems; acquisition of entrepreneurial, creative and teamwork capabilities; communication).

- Providing TVE for all:
  - promote broad access to learning and training throughout life;
  - TVE should be an instrument for social inclusiveness and cohesion (equal access for men and women, broader access for the unemployed and marginalized groups).

This concept of 'TVE for all' should be seen in relation to a new paradigm within which education for the twenty-first century should aim at including all domains of learning. It also relates to the search for new partnerships between the education system and industry.

The policy implications of the 'new expanded vision for TVE' developed by UNESCO Member States at the Seoul Congress still need to be elaborated. No doubt the implementation of this vision will very much depend on country-specific conditions.[4]

2. The African community: policy dialogue among French-speaking countries

In many countries of sub-Saharan Africa, particularly in the French-speaking countries, governments have placed great hopes in technical and vocational education as a means of supporting the economic and social development of their countries. Since the early 1990s, however, African countries have joined in the general questioning of the effectiveness of TVE, as reflected in the various concerns raised by the 'Conférence des ministres de l'Education des pays ayant le français en partage' (CONFEMEN).

In the 1990s, several meetings of the CONFEMEN reviewed issues related to skill development and the preparation of youth for the world of work. In 1992, the Montreal Conference recognized technical and vocational education as a means of integrating and maintaining young people in working life and of developing the vocational skills needed to meet the changing needs of the labour market.

The Yaoundé declaration of 1994, stemming from the 46th ministerial-level session, sketched the outlines of a 'basic school' having a twofold purpose:

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[4] The full report of the Seoul Congress, including the recommendations, can be found at: http://www.unesco.org

64

- preparing pupils for further secondary schooling;
- preparing pupils for integration into working life if schooling is not continued beyond the first secondary cycle.

The 47th session of CONFEMEN, held in 1996 in Liège, was mainly devoted to technical and vocational education. It was prefaced by the recognition that despite its considerable potential for integrating young people into the labour force, TVE made up only a negligible proportion of secondary education systems. After the discussions, the Ministers unanimously adopted the Liège declaration and decided to place technical and vocational education, along with basic education, at the centre of their concerns and initiatives. The following guidelines were recommended:

- recognition of vocational and technical training as an integral part of the education system;
- raising its status with respect to general education;
- refocusing the content of training programmes on the acquisition of personal skills and job qualifications.

The interest aroused by the subject of technical and vocational education led the participants to organize the 'Assises francophones' on this topic in 1998 in Bamako (CONFEMEN, 1998a; 1998b).

The "Assises francophones de la formation professionnelle et technique"

This conference brought those in charge of education and training together with their economic partners, in order to examine in greater depth the topic of integrating young people into working life through vocational and technical training.

One of the key ideas of the conference was the shift from 'technical and vocational education' to 'vocational and technical training' (VTT), aimed at refocusing this type of education on the school-to-work transition via closer links to the real socio-economic situation of the countries of sub-Saharan Africa, particularly the French-speaking countries.

The overhaul of vocational and technical training is based on the following guiding principles:

- Anchoring vocational and technical training in the new 'basic school':
  - a supply of VTT for basic qualification levels (workers, skilled

  workers, middle management) that focuses less on specialization and more on broadly based skill acquisition;
  - access to VTT at all levels of qualification;
  - new pathways for training.

- Strengthening the links between VTT and local, regional and national socio-economic conditions:
  - involving all the stakeholders concerned by VTT, in both the formal and informal sectors;
  - promoting contacts and co-operation between the managers of the education system and the working world;
  - involving industry in needs analysis, definition of trades, and in curriculum development and certification;
  - involving the community and local stakeholders in local development projects;
  - inducing training institutions to participate actively in these projects by allowing use of their facilities, producing goods and providing services.

- Increasing and diversifying supply; designing flexible programmes centred on skill acquisition:
  - better information on the nature of the labour market;
  - analysis of formal-sector and informal-sector demand for labour.

- Diversifying the sources of financing:
  - including the contribution of the private sector;
  - instituting, for example, a training fund financed by apprenticeship tax payments.

- Overhauling the governance of this branch by setting up partnerships geared to the redefined role of the state:
  - bringing training sites closer to production sites;
  - decentralizing authority and the management of training institutions;
  - giving more responsibility to local communities;
  - giving more autonomy to institutions.

Vocational and technical training must be redesigned to give young people – those who are in school, early school-leavers and those who have no schooling – the possibility of acquiring vocational qualifications, as well as to develop the entrepreneurial spirit which should lead to self-employment.

It is advisable:

- to introduce entrepreneurial training in VTT programmes;
- to foster the emergence of young entrepreneurs;
- to help integrate and maintain them in the working world.

The policy debate within the CONFEMEN framework offers a very comprehensive and challenging agenda for reforming TVET systems in sub-Saharan countries. The second part of this report provides information to review its actual implementation.

3. Converging orientations

In conclusion, all of the guidelines laid down by international organizations and African countries aim at breathing new life into technical and vocational education. The key points of these recommendations have to do with redefining the role of the state: the state should play the role of regulator of the supply of technical education by developing procedures to decentralize TVE and by providing incentives and a framework working to set up new partnerships between institutions and business.

In the climate of financial crisis observed in most of the countries of sub-Saharan Africa, public budgets alone cannot meet the funding requirements. It is therefore recommended that the state seek to diversify the sources of finance and to create incentive mechanisms to encourage the emergence and/or growth of the private training sector.

4. The country reform agenda

Most of the countries in sub-Saharan Africa regard technical and vocational education as vital to their economic development, as this sector is associated with acquisition of the qualifications needed to be competitive in the international arena. TVE is going through a stage of transition and reorientation in the region, as efforts are being made to give students some basic skills and knowledge, as well as the tools they need to play an active role in the production system.

There are many movements under way in the countries of sub-Saharan Africa to change the content of TVE and the way it functions. All actors are deliberating the question of which innovations should be introduced in these countries, in the knowledge that the results obtained will depend on not only their economic and social environment but also cultural and historical factors.

The following sub-sections provide a few selected examples to illustrate the various reforms under way in technical and vocational education in the countries of sub-Saharan Africa. This preliminary review constitutes a brief introduction to the topic, focusing on the relationship between institutions and industry, which forms the core of the reform process. Further and broader country-specific analysis will be offered in the second part of the report.

5. Strengthening co-operation between enterprises and TVE institutions

International recommendations for the improvement of technical education and vocational training systems systematically refer to the need to forge closer links between training and the labour market. This search for a better match between jobs and training is based on a two-horned problem:

- The labour market today is often considered to be characterized by an acute shortage of skilled labour, as reported by many employers. Paradoxically, many economies suffer, at the same time, from rising unemployment, particularly among the young people leaving the education system, as reflected in graduate employment rates.
- The pace of technological change requires workers to have new qualifications in order to perform the tasks required in modern jobs and thus to raise competitiveness (Poupard *et al.*, 1995).

To cope with these two issues, technical and vocational education must establish close links with enterprises to make it easier for graduates to make the transition from school to work. In sub-Saharan Africa, however, the term 'enterprise' may be applied to entities which differ enormously in terms of size, structure, resources and technology. The analysis must therefore distinguish among different categories:

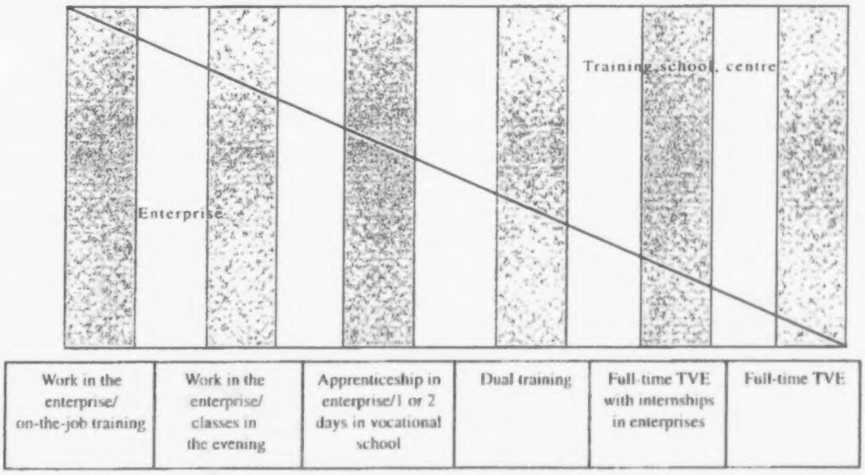
- Small informal-sector enterprises are often defined as small units that employ fewer than 10 people, observe no administrative or legal regulations, employ family labour, practise flexible working hours, make use of informal sources of credit and manufacture finished products. Workers in such enterprises rarely have access to formal education and training (Sethurama, 1976).

- Small and medium-sized enterprises (SMEs) may belong either to the modern sector or to the intermediate sector. They are characterized by a stable workforce, a minimum level of book-keeping and payment of taxes and social security contributions. They employ from 10 to 50 wage employees.
- Large modern enterprises, which are sometimes multinational in scope, have a large workforce, including highly qualified employees and a rigorous accounting framework.

This classification of the types of enterprises in sub-Saharan Africa may seem oversimplified, but it is useful because each size category and sector of activity has very different requirements in terms of labour force qualifications. As a result, each type of enterprise should establish a different kind of partnership with TVE institutions. Far too often, apprenticeship is associated exclusively with the informal sector, and TVE with the modern and intermediate sectors, despite the fact that TVE can also benefit the informal sector.

Co-operation between technical schools and enterprises can come in several forms, ranging from sandwich training to collaboration in research and development. *Diagram 3* below illustrates the diversity of training modes based on the extent of co-operation between training institutions and enterprises (CONFEMEN, 1998a).

Diagram 3


Training school, centre
Enterprise
Work in the enterprise/ on-the-job training
Work in the enterprise/ classes in the evening
Apprenticeship in enterprise/1 or 2 days in vocational school
Dual training
Full-time TVE with internships in enterprises
Full-time TVE

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5.1 Dual modes of training

Dual training consists in training youth both in a school environment and in firms. Use of both the enterprise and the school as training sites is considered essential to improving the integration of young people in the labour market.

This form of training is based on the complementarity between the enterprise and the school, in the sense that it involves not merely the sum of the knowledge acquired in the classroom plus the know-how acquired within an enterprise, but also the constant application of the knowledge acquired. The two milieux reinforce and complement each other to turn out trainees who are better qualified and better able to adapt to the business world (Greffe, 1997).

Although there are a few, but significant, exceptions – e.g. Botswana, South Africa, Zimbabwe – most African countries have very little experience with dual forms of training in technical and vocational education. Hence several countries, such as Côte d'Ivoire, Kenya and Congo, are developing this form of co-operation with business in order to work towards a closer match between the supply and the demand for training.

Although dual training appears to be an effective means of familiarizing trainees very early with the conditions of the work environment, there are many difficulties in applying this system in the countries of sub-Saharan Africa. One of the reasons for this is it requires first and foremost that enterprises be willing to provide training and consider it as a long-term investment in human resource development. If such training is to give young people a true immersion experience in the company, careful organization of in-firm practical training and supervision of trainees is also required. These conditions, not always met in developed countries, are hardly satisfied in most of sub-Saharan Africa.

The lack of an industrial fabric in the countries of sub-Saharan Africa is generally considered as a major obstacle to the development of dual training. However, the Malian example given above shows that dual training is not addressed only to modern-sector enterprises, but can also apply to small informal-sector enterprises.

Dual training should indeed not be thought of as a one-way delivery system, i.e. from TVE institutions to enterprises, but also from enterprises, particularly in the informal sector, towards TVE institutions. However, taking account of the informal sector's requirements entails setting up new forms of partnership, so that all stakeholders be consulted.

Dual training, in which trainers and craftsmen are closely involved in defining and managing programmes, requires that centres be autonomous so as to free them from the inertia of centralized bureaucratic procedures. In some countries, recent decisions on pedagogical, financial and administrative affairs show a tendency to grant such autonomy.

5.2 *In-firm internships for pupils*

Internships in companies, which are relatively common in sub-Saharan Africa, may be described as partial co-operation between TVE institutions and businesses. They allow young trainees to absorb the social and occupational conditions of their chosen specializations via a first contact with the business world. Internships thus allow students to add hands-on experience to the primarily theoretical training they receive in their institutions.

Several countries in sub-Saharan Africa have introduced legislation stipulating the need to develop programmes focused on the practical aspects of training by organizing in-firm internships. In Cameroon, for example, the official programmes governing TVE institutions provide for practical internships in enterprises during the holidays at the end of the school year. The objectives of pupils' internships must be clearly defined and communicated to companies' training officers. The company training officer should also receive instructions from the TVE institution about methods of monitoring and evaluating the internship of the pupil concerned. Ghana, Kenya, Côte d'Ivoire, Senegal and Uganda have also taken measures to facilitate in-firm internships for TVE pupils.

However, the expansion of the in-firm internship approach faces many obstacles in sub-Saharan Africa, due to the wide gap between the demand for work-experience programmes and the supply capacity of industry. In practice, it is generally impossible to provide internships for all. Moreover, training institutions do not have a well-organized process for assigning internships to pupils; in most cases, pupils 'negotiate' their internships individually and the institution merely approves their applications. As a result, pupils are not closely monitored, and no evaluation is made of their performance and behaviour during in-firm internships (UNEVOC, 1997). Furthermore, although such internships are considered to be an integral and important part of the pupil's training, they are often not counted in the overall evaluation of the pupil, which leads to a lack of assiduity on the part of both parties involved (enterprise and pupil).

5.3 Teachers/trainers training

Teachers/trainers play a crucial role in the supply of high-quality technical and vocational education. In this sector, instructors need first-hand industrial experience. In most cases, however, they have little or no contact with the workplace or with new technologies. Thus they rarely have the possibility of updating their stock of knowledge. Some countries have taken measures to make teachers aware of the new technologies and the new skills which will be required of pupils when they enter the labour market.

The quality of technical and vocational education depends in part on the efforts made by governments and TVE institutions to obtain well-trained teaching staff. In this respect, some institutions, generally in higher education, also make use of instructors from the private sector, chosen for their competence to teach specialized training courses. An example is Senegal's *École nationale supérieure universitaire de technologie*. The Government of Benin has taken a somewhat different approach: in the context of developing co-operation between training institutions and enterprises, the government considers that teacher training should be conducted in synergy with business via the inclusion of hands-on training courses in firms.

The *Centre africain d'études supérieures en gestion* (CESAG) in Dakar is endeavouring to set up training, counselling and research activities in the field of educational engineering in order to respond to the current problems involving skills and the labour market; to serve as a regional centre of excellence in the field of human resources management; and to take part in the development, adaptation, dissemination and delivery of methods and tools for identifying the specific requirements inherent in different work situations and the construction of specific, multi-faceted training programmes to meet these requirements. To this end, the CESAG offers two new services:

- a *Diplôme d'études supérieures spécialisées* (DESS) in educational engineering, addressed to various groups (instructors, designers of training programmes, consultants, training managers) and delivered in 'dual' mode allowing participants to combine training in Dakar with their current professional activities;
- consultancy services in connection with the development of the relationship between employment and training: forecasting studies on jobs and qualifications, analyses of organizations' training requirements, design of training programmes for enterprises, training plans, analysis and design of training systems.

5.4 Service provision to enterprises

Co-operation between training institutions and businesses can allow enterprises to call on the skills of teachers and students for help in carrying out a project. Training institutions may in fact be in a position to meet such requests through service provision. Such initiatives have the twofold advantage of allowing the enterprise to benefit from the technical expertise of TVE institutions and generating financial and material resources which are essential to the proper functioning of these schools, as well as giving them the opportunity to upgrade their human resources and facilities. Moreover, both students and teachers appear to be much more motivated when working on a business project.

5.5 Collaboration with business in setting curricula

Involving enterprises in setting the content of training is regarded as crucial because this form of collaboration makes it possible to train young people more effectively for the workplace.

In Ghana, the importance of close relations between TVE institutions and business has been recognized by the Ghana Education Service (GES). The recommendations of this body stipulate that industrial and commercial interests must be adequately represented on the governing boards and programme advisory committees of TVE schools, in order to ensure that the content of the courses provided by TVE institutions matches industrial and commercial requirements and that it can evolve in line with the changing nature of demand on the job market (UNEVOC, 1997).

Kenya has a well-established system for such co-operation between enterprises and training institutions. This system allows business representatives to take part in the work of the various programme development committees of the Kenya Institute of Education – both those which decide on the subjects to be taught and those responsible for the courses themselves – and gives them seats on the governing board. This process is meant to ensure that the needs of industry are taken into account in every TVE programme developed.

5.6 Job-related training

The ever tighter constraints on enterprises resulting from incessant technological change and the greater competitiveness of economies have increased the need for continued training of the labour force. Job-related training seems to be developing in some modern-sector African enterprises, enabling firms to cope with local shortages of qualified workers. It also benefits, in some countries, informal-sector artisans (e.g. Kenya, Mali). Continuing education is coming to be seen as a necessary complement to initial training, although it cannot replace such training or compensate for its inadequacies (Vernières, 1995). It is also a way to reach a population segment which works mostly in the informal sector.

The response of TVE institutions to the continued training needs of business can be a means of bringing training closer to the demands of the labour market. However, the development of job-related vocational training as a paid service requires institutions to adopt new teaching methods and organizational changes. This adjustment process raises a number of problems.

The development of partnerships should help technical and vocational education to adjust to the requirements of the labour market in both the formal and informal sectors. The state can play an important role here by introducing incentive measures and mechanisms enabling training to adjust to demand and by developing an appropriate legal framework (Fluitman, 1999).

74

Chapter III

Bilateral donor policies for technical and vocational education

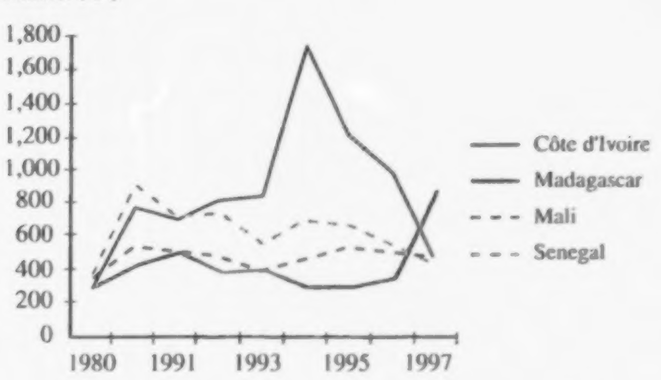
1. Revisiting aid

Increasing concern about the effectiveness of foreign aid and its impact on policy reforms in Africa has resulted in the World Bank research on 'Aid and reform in Africa' (World Bank, 2001b). The findings of this have confirmed that 'aid cannot buy reform'.

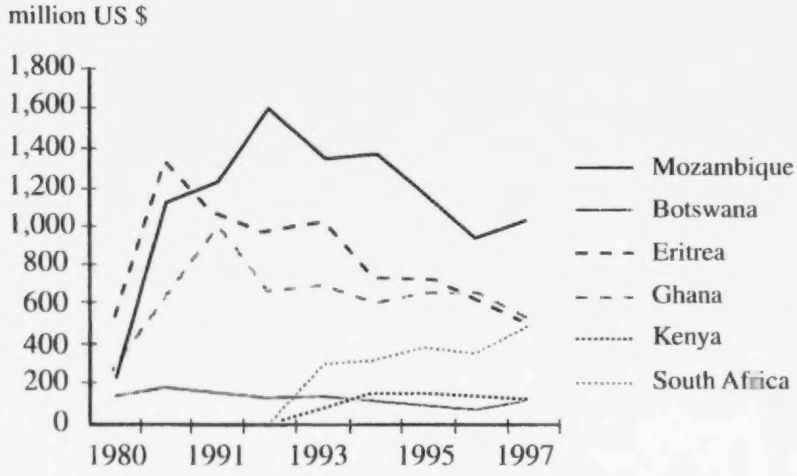
Sub-Saharan Africa is particularly sensitive to external sources of finance. In education, aid constitutes a major resource, especially for capital expenditures. High levels of external intervention raise issues of dependency and ownership over reforms. Africa remains aid dependent with net transfers from foreign assistance representing 9 per cent of GDP. Yet, decreasing aid jeopardizes the progress made and limits future expansion and improvement of the education and training system. Between 1990 and 1998, foreign aid and foreign direct investment have decreased from US$32 to US$19 per inhabitant (World Bank).

This overall decline overlooks country-specific trends, as illustrated by looking at ODA trends for the 10 countries studied (see *Figures 13 and 14*). Madagascar, Mozambique, South Africa and, to a lesser extent, Botswana experienced an increase in ODA flows in the late 1990s.

Figures 13 and 14. Trends in net ODA from all donors, 1980-1997 (constant 1995 $)



Source: African Development Indicators – World Bank 2000



Source: African Development Indicators – World Bank 2000

2. An overview of international aid to technical and vocational education[5]

Bilateral and multilateral aid agencies have provided and continue to provide aid to the countries of sub-Saharan Africa for the purpose of improving the quality of their technical and vocational education. Traditionally, such aid may be in financial, technical, physical or human form.

The Association for the Development of Education in Africa (ADEA) has compiled a very extensive database of development co-operation projects in the educational field. This database, known as Prisme, provides information on some co-operation projects in the TVE field. These projects are summarized in *Table 7* below.

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[5] This review does not include World Bank assistance, which forms part of a separate study currently conducted by the Bank. The sections on French, German and Swiss aid were prepared by Barbara Murtin, IIEP consultant.

Table 7. Information on some co-operation projects in the TVE field

Donor country or body	Beneficiary country	Start /end	Description	Amount*
Austria	Burkina Faso	1997	Support to the *École normale supérieure* for training of technical teachers and continued training of technical instructors	FF 626,927
Austria	Burkina Faso	1994	Contribution to operating costs of the centre for technical education and vocational training	US$ 100,000
Austria	Burkina Faso	1997	Training of secondary-level TVE teachers; increase in infrastructures for receiving trainees	FF 2,000,000
			Studies of training requirements of the labour market	
Austria	Burkina Faso	1996/1997	Investment in infrastructure of secondary TVE institutions	SH 9,800,000
Austria	Burkina Faso	1996/2000	Training of technical education instructors	US$ 1,047,904
Austria	Burkina Faso	1997/ ?	Financial aid to the *Centre de l'enseignement technique féminin* and the *Centre d'appui de l'éducation technique*. For purchase of equipment	SH 3,053,860
Austria	Burkina Faso	1998/1999	Support two vocational training centres for young farmers in the north of Burkina Faso	SH 4,678,500
Austria	Cape Verde	1998/2000	Contribution to the reorganization of vocational education. Components of the project are teacher training, curriculum development, equipment of school facilities, organizational development and production of pedagogical materials. Financing of recurrent costs for the CEFAP Vocational Education Centre in Sao Jorginho	SH 5,965,500
Austria	Zimbabwe	1997/ ?	Support two vocational training centres in Zimbabwe	SH 2,045,000
Austria	Uganda	1999/2001	Support the rehabilitation of vocational education in the District Kisoro. The renovation and equipment of St Gertrude's vocational secondary school as well as the establishment of vocational education	SH 2,645,000
Belgium	Côte d'Ivoire	1997/2000	Programme to revamp and develop TVE	BF 100,000,000
Canada	Guinea	1996/2000	Support to development of TVE programmes; increase institutions' management capabilities	C$ 4,303,421
Canada	Gabon	1995/2001	Institutional support to higher education (general and technical)	C$ 3,000,000
Canada	Guinea	2000/ ?	Improving TVE performance by supporting implementation of the reform of TVE; reducing the differences between the various types of education, in terms of both students and the teaching staff	C$ 10,000,000
Canada	Cameroon	1988/2000	Training workers and technicians capable of meeting the requirements of the local labour market; raising the quality of secondary TVE	C$ 3,600,000

Denmark	Malawi	1998/2001	Preparing Sub-sector Programme. Technical, entrepreneurial and vocational education training	
Denmark	Mozambique	1993/1996	Strategic planning of technical education	DKr 1,000,000
European Commission	Botswana	1996/1998	Increasing training capacity in the VET, thereby assisting the government to supply the labour market with appropriately skilled and semi-skilled workers	ECU 15,100,000
Finland	Zambia	1996/1999	Improving the vocational training system by introducing skill-based, modular training programmes; ensuring an adequate supply of skilled labour for the formal and informal sectors; promoting training for self-employment	FMk 42,600,000
France	Benin	1996/2000	Adapting TVE to the requirements of enterprises	FF 10,055,000
France	Niger	1994/1998	Rationalization of TVE; support to vocational training in higher education; support to the four teacher-training schools	FF 24,150,000
France	Mauritius	1994/1999	Creation of a higher TVE institution: the Rose Hill Polytechnic Institute; initial training in a new branch, mechatronics; training of trainers and creation of a Technological Resource Centre which is open to enterprises and responsible for management of continued training and for student counselling	FF 40,500,000
France	Burkina Faso	1997/2000	Provide the workforce with opportunities for continued vocational training; work to improve the school-to-work transition for TVE trainees; adapt TVE facilities and programmes and diversify the supply by creating new training activities	FF 25,800,000
France	Djibouti	1996/2000	Implementation of a training plan for 30 teachers from the upper-secondary school for industry and commerce	FF 287,700,000
France	Central African Republic	1996/1997	Adapting TVE programmes to the needs of the productive sector and continued training	FF 69,760,000
France	Gabon	1996/2000	The 'Employment and Qualification Training' (FIQ) project works to promote the adaptation of TVE to meet the needs of the economy	FF 28,700,000
France	Comoros	1996/1999	Adapting TVE programmes to the economic needs of the country	FF 30,000,000
France	Togo	1996/1998	Adapting TVE programmes to the needs of the private sector; support for revamping of apprenticeship and skilled crafts	FF 8,000,000
France	Mali	1997/2000	Project in support of vocational training and employment; establishment of UFAEs and FAFPA	FF 42,000,000
France	Mauritania	1994/ ?	Improve the efficiency and quality of training, prepare replacements for French technical assistants and increase the system's autonomy and unity	FF 80,000,000
France	Senegal	1997/2000	Increase accessibility and develop the secondary and higher TVE systems; raise TVE quality structuring of supply with respect to demand for training in the industrial, skilled-crafts and tertiary sectors	FF 28,050,000

Japan	Mozambique	1997/1998	Upgrading the equipment of vocational training centres	
Japan	Uganda		Rehabilitation and extension of the Nakawa vocational training institute	
Netherlands	Eritrea	1995/1997	Rehabilitation of the resources of secondary-level technical and vocational training	Gld 2,638,000
Sweden	Tanzania	1991/1996	Expansion of the *École normale d'éducation professionnelle* in Morogoro; development of the vocational training centre in Moshi; rehabilitation of the vocational training centres in Tanga and Mwanza; development of training programmes for the vocational training centre in Kihonda; support to the 'Special Fund for Women'	
Sweden	Mozambique	1997/1999	Assistance to higher TVE	SKr 93,000,000
ADB	Ethiopia	1993/1996	Creation of a training institute for electricity and electronics; study grants to 500 trainees	US$ 23,040,000 (loans)
ADB	Tanzania	1995/1997	Studies of employment and technical education	US$ 993,600
ADB	Tanzania	1990/1996	Construction and equipment of two additional training workshops for textile and printing crafts at the vocational training centre of Chang'Ombe; transformation of three secondary schools into technical schools; provision of funding for mechanical and civil engineering laboratories	

Source: ADEA, Prisme database, 1997.

* Amounts: all sums are grants unless otherwise indicated.

A few words about interpreting this table:

- The first difficulty in processing the data is to select only those co-operation projects which were linked to technical and vocational education. The search keywords used were 'technical education' and 'vocational training'. Not all of the projects selected by this search involved secondary TVE.
- The amounts given should be used with great caution, as they usually include other parts of a larger co-operation project which is not necessarily connected with technical and vocational education.
- Although it contains a great deal of information, this database can be no more than a guide, since not all international co-operation projects are listed. For example, those of Germany and Japan are absent from the database.
- The most recent update of the database dates from 1997.

On the whole, the aid furnished by bilateral and multilateral agencies is intended to raise the quality of technical and vocational education, particularly through teacher training and the adjustment of programmes to the needs of the production system. In addition, some projects are aimed at increasing admittance capacities.

A complete inventory of international aid to technical and vocational education would be beyond the scope of this report, which will try instead to highlight the main policy trends in this field in recent years. The contributions of only a few countries, namely France, Germany and Switzerland, will be further described. Many others also contribute to the development of this sector and some will be briefly mentioned. The following reasons explain this focus on three countries:

- It seemed important to include France due to its very special relationship with French-speaking African countries. Developed during colonial times, its special status was maintained, among other factors, through the control of the Franc zone. Furthermore, the strong influence of the school-based TVE French system has produced long-lasting effects on contemporary training systems in French-speaking Africa (see below).
- Germany, through its dual system, represents the other pole of training systems in Europe. The expansion of this mode of training has increasing effects on African countries through the German co-operation. But in some SSA countries its existence is linked to the presence of German-speaking communities, legacy of the European penetration of Africa[6] (e.g. Botswana, Namibia, South Africa).
- Switzerland, although modest by the volume of its intervention, represents an interesting case, due to its particular concern for civil societies and NGOs. Furthermore, its long tradition of company-based training and social dialogue constitutes, as for Germany, a strong asset for contributing to bridge the gap between training providers and enterprises.

3. France

3.1 An overview of French aid

In 1997, France earmarked 0.45 per cent of its GDP (US$6.348 million) for development. In absolute values, it is ranked third among financial backers, behind Japan and the USA. Almost half of public financial assistance is directed, first, towards restructuring the debt and, secondly, towards investment and educational services. Around 3,000 French specialist co-operation staff work abroad.

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[6] It is to be noted that in some countries, like Zimbabwe, the tradition of enterprise-based training was modelled on the old British apprenticeship system.

Since the reform of French co-operation was implemented on 1 January 1999, new bodies have shown that they fully intend to improve co-ordination of its policy for development.

This role is assumed by four bodies:

The inter-ministerial committee for international co-operation (CICID, or *Comité interministériel de la coopération internationale*)

Purpose: a political body for providing impetus and direction

Responsibilities:
Determination of the priority support area
Policy for global programming
Evaluation of compliance with fixed objectives

Ministry of Foreign Affairs (diplomatic centre)
Ministry for Economic and Financial Affairs (financial centre)

Tasks: administrative organization of monitoring

Determination, management, control and monitoring of assistance

French Development Agency

Tasks: main operator

Implementation of projects and programmes

Supreme Council for International Co-operation

Tasks: counselling and consultation

Joint consultation involving public and private players

In 1999, the CICID established a priority support area (zone de solidarité prioritaire, or ZSP) which received essentially French bilateral assistance. This area includes 55 countries, 37 of which are in sub-Saharan Africa, which are among the least developed in terms of income. The strong priority accorded sub-Saharan Africa (42.2 per cent of all bilateral assistance) is attributable to the strong historical associations of France with the African continent.

The instrument used to intervene in countries in the priority area is a Priority Support Fund (*Fonds de solidarité prioritaire*, or FSP). This fund finances solely by means of donations support from the Ministry of Foreign Affairs in the area of institutional, social and cultural development and research.

Outside the ZSP, co-operation is primarily concerned with maintaining a political, cultural and economic presence.

France is also active in the area of multilateral assistance: 24 per cent of its co-operation budget is for multilateral co-operation (as against 76 per cent for bilateral assistance), including 10 per cent within the European Community.

A great many other players are involved in development assistance, including the NGOs, the regions, the *départements*, the communes, firms, trade unions, churches and professional organizations, etc. State allocations for all of them are relatively small. Their actions supplement or may unfortunately duplicate those of French central government co-operation, because of a lack of consultation, transparency and precision in the latter's sectoral policies.

3.2 Aims and organization

The aims of the priority support area are consistent with the priority concerns of co-operation in four respects:

- strengthening of the economy and support for sustainable growth;
- consolidating the institutions of government and democracy;
- the fight against poverty and fully catering for social needs (in particular, in health and education/training);
- strengthening processes of regional integration and co-operation.

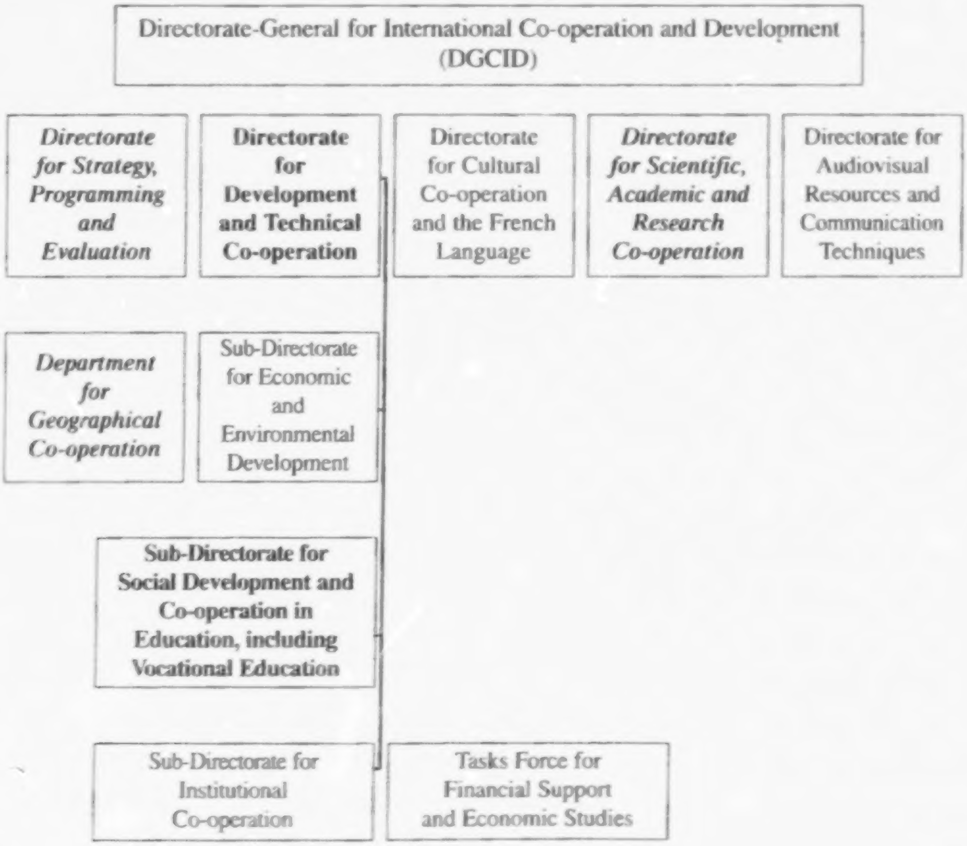
One of the priority concerns, support for research and in the area of scientific information, is not included. The aims of the ZSP also attach importance to environmental protection and the promotion of participative and cultural development.

Much of French co-operation is also concerned with promoting the French language and with communication techniques.

Within the objectives of co-operation, the political and 'humanitarian' dimension overlap. Communications, the French language, higher education and scientific research, institutional, administrative and legal co-operation are all areas in which France still exercises some control over the main levers of power in partner countries.

Vocational education is regarded as a social and not an economic issue. This is confirmed in the organization chart of the Directorate-General for International Co-operation and Development, in which vocational education comes within the ambit of the social development sub-committee. This approach is arguably attributable to the French presence within the formal education system, and its relative lack of interest in any non-formal education system originating within firms and/or the non-formal sector itself.

Organization chart


Directorate-General for International Co-operation and Development (DGCID)
Directorate for Strategy, Programming and Evaluation
Directorate for Development and Technical Co-operation
Directorate for Cultural Co-operation and the French Language
Directorate for Scientific, Academic and Research Co-operation
Directorate for Audiovisual Resources and Communication Techniques
Department for Geographical Co-operation
Sub-Directorate for Economic and Environmental Development
Sub-Directorate for Social Development and Co-operation in Education, including Vocational Education
Sub-Directorate for Institutional Co-operation
Tasks Force for Financial Support and Economic Studies

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The French organization chart is in the form of a pyramid. It describes the hierarchy of tasks and their content, whereas the German and Swiss description indicates only content but in greater detail than in the case of France. While Switzerland and Germany are similar, as regards content, in the way they structure their organization charts by country and area of concern, France incorporates the cultural dimension of the French language and support for a sector of the future, namely telecommunications which is now emerging as a significant issue in Germany and Switzerland.

Co-operation activity on the part of France is undertaken within a firm state-to-state bilateral framework. Underlying its philosophy is the belief that, as a result of its help, a partner state will be able to assist its own society at large. Furthermore, co-operation with another state enables France to maintain prestige and political influence vis-à-vis its former colonies. It is thus entirely understandable that formal systems of education and training should get priority support.

As France has not outlined any co-operation strategy for vocational education, experience acquired in the field (the inductive method) will be used to analyze German, Swiss and French strategies.

3.3 TVE sector policy

Since 1 January 1999, the Development Co-operation Department has been attached to the Ministry of Foreign Affairs so that French development policy has subsequently been affected by two influences.

First, there is the idea that, through co-operation, France may influence the development of countries in the South by means of vocational education. It can promote its own interests by addressing, wherever possible, the concerns of the South. For this purpose, it may encourage the technical training of economic elites in the modern sectors of partner countries. This school of thought is supported by those in favour of globalization. The capacity for survival of an economy may be gauged in terms of its ability to adjust to liberalization. As both economic and political interests are at stake, this gives rise to competition between bilateral co-operation initiatives.

In contrast to this is the outlook of the old school in the 'development co-operation' sector, which seeks to preserve some degree of influence by means of French language and culture while respecting the needs of the South. Decisions are taken in accordance with findings based on observation in the field rather than those derived from macroeconomic analyses. This school of thought is strongly in favour of fresh French investment in basic education.

The tension between these two different perspectives makes it hard for those in charge of vocational education to formulate proposals for a clear policy for co-operation in this area. These differences are further accentuated by numerous local authority initiatives. The communes, *départements* or regions make their own contributions to development without any reference to general French policy. The likelihood that resources will be wasted and that French co-operation will be largely ineffectual becomes that much greater in the field.

Projects supported under the Priority Support Fund use two mechanisms for dealing with vocational education, namely the establishment of special projects and support for social development funds. Out of 47 countries in the priority area which were financed from the Priority Support Fund, 12 received support for projects concerned with education, vocational education or continuing education. The majority of these schemes related to reform of the primary education and formal higher education systems. The remainder were concerned with continuing education, either at a very high level as in Senegal and Lebanon, with the introduction of continuing or specialized courses in management, or at a lower level (Haïti, Togo and Djibouti) in which an effort was made to strengthen contacts between economic and education or training operators.

Almost 60 per cent of French development co-operation resources are earmarked for Africa (42.21 per cent for sub-Saharan Africa and 15.56 per cent for Northern Africa) which accounts for a large majority of the poorest countries.

French aid in the TVE field (see *Table 8*) is fairly diversified: assistance was given to 23 countries in sub-Saharan Africa during the year 2000 (French Ministry of Foreign Affairs).

Table 8. French aid to sub-Saharan Africa in the TVE field

Country	**Project**	**Amount (FF)**
Benin	Support for technical and vocational training	8,627,561
Burkina Faso	Project supporting TVE	11,692,168
Cameroon	Secondary technical education	970,085
Cameroon	On-site training	426,436
Central African Republic	Adjustment of education sector	5,461,000
Chad	Support for training in rural trades	678,052
Chad	Vocational training and technical education	6,670,839
Comoros	Reintegration into the workforce and vocational training	1,556,566
Côte d'Ivoire	Support to the *Centres des métiers ruraux*	10,190,469
Côte d'Ivoire	Support for vocational training	24,437,870
Djibouti	Support for vocational training	6,290,285
Gabon	Job-relevant training and qualification	10,186,859
Gambia	Support for French-language vocational training	116,000
Ghana	Industrial maintenance	15,000
Madagascar	On-site training	1,102,188
Mali	Support for continued vocational training	16,937,755
Mauritania	Revamping of vocational and technical training	2,857,907
Mauritius	Higher technical and vocational education	13,026,336
Mozambique	Support for vocational training	42,500
Niger	Support for vocational training	6,598,075
São Tomé and Principe	Vocational training	4,478,399
Senegal	Training in rural trades	414,270
Senegal	Job-related vocational training	27,422,343
Sudan	Technical education and vocational training	21,140
Togo	Vocational training – SMEs – skilled crafts	7,194,680
Zambia	Continued training in the hotel industry	27,360
Zimbabwe	Training in the tourism industry	268,000
Zimbabwe	Co-operation in the tourism sector – training	506,400
Total sub-Saharan Africa		**168,216,543**

Source: French Ministry of Foreign Affairs, 2000 (Internal document).

France is active in many fields of technical and vocational education: for example, teacher training in Mauritius; adjusting programmes to the requirements of employers in Benin; support for continued vocational training in Mali via the development of the *Unités de formation et d'appui aux entreprises* (UFAEs); and support for training in the tourism industry in Zimbabwe.

To promote the TVE sector, France is putting the emphasis on revitalizing systems of financing, as well as on increasing both the capacity and the autonomy of TVE institutions.

It is to be noted that, in contrast to Germany, the improvement of education systems and, in particular, those for vocational education is related to broader social objectives, rather than economic development targets. This difference vis-à-vis Germany and Switzerland is crucial: education is regarded as a social factor, as in France itself, in which people retain the prestige of a formal qualification throughout their working lives.

4. Germany

4.1 GTZ

GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit) is a private limited company (plc/GmbH) offering development services. It was set up on the initiative of the German Government and works primarily for the Federal Ministry for Economic Co-operation and Development (BMZ). Four Ministries are represented on its board of directors (the BMZ, the Ministry of Foreign Affairs, the Ministry of Finance and the Ministry for Economic Affairs). The BMZ is the majority shareholder.

GTZ has been in operation since 1975 and aims to improve living conditions and sustain the natural resources of its partner countries. It employs over 1,000 staff in Germany (with headquarters at Eschorn, near Frankfurt) and over 10,000 abroad, 8,000 of whom are locally recruited. It is present in over 120 countries, 70 of which have a GTZ office.

In the wake of the relative recession experienced by Germany for some years, the BMZ reduced its financial support in 1999. GTZ was able to compensate for this by entering into Public/Private Partnerships (PPP) with other public contractors such as the World Bank, as well as with private contractors including German firms or professional associations. Its turnover rose by 2.3 per cent in 2000 (DM 1.804 billion, or around FF 5.4 billion French francs) compared to 1999.

This increase has encouraged GTZ to pursue the idea of a new market for development. The involvement of firms in development programmes is possible in middle-income countries but also, contrary to popular belief, in the poorest countries which account for 50 per cent of projects with the German private sector. After two years in existence, the partnership programme with German businesses and professional associations has led 148 firms to co-operate with GTZ in 50 different countries.

It is as a result of budgetary restrictions also that GTZ has decided to concentrate its bilateral support primarily on 70 countries in 11 priority areas. In each priority country, no more than three such areas will be covered. Eventually, GTZ hopes not only to achieve savings in resources but to boost its effectiveness and efficiency. Furthermore, country-based schemes will be included in sectoral and regional programmes in order to lower administrative costs.

As regards its staff, GTZ is regularly cutting back each year on the number of German employees at its central office (by 5.1 per cent between 1997 and 2000) and abroad (by 4.9 per cent), only occasionally replacing those who leave the firm voluntarily or retire.

A private undertaking, GTZ is neither restricted by the political ambitions of the government, nor totally financially dependent on government resources. Its role is limited to the implementation of development policies. The diplomatic aspect of relations between Germany and the partner countries is the responsibility of the local embassies which, for their part, do not get involved in the work of GTZ in the field.

With its relatively short colonial history, Germany has not cultivated an exclusive association with any particular geographical region and is ready to assist all countries requiring technical, human or financial support.

However, the role of GTZ has expanded from that of an operator to one of key government adviser in the area of conflict prevention.

GTZ was able to publicize its activities during 'Expo 2000' in Hanover, thereby increasing interest in the company among society at large. This determination to communicate and share information is also evident inside the venture itself, in which the intranet/Internet network provides for the rapid exchange of experience relating to individual projects and makes it easier to devise and implement fresh ones.

Multidisciplinary staff teams have been formed in central office to exploit knowledge and circulate it.

In addition, the concern demonstrated by each project in revealing and publicizing the content of its activities is of interest out in the field. It boosts the credibility of GTZ initiatives and brings the methods of the company to the attention of a wider audience than the one targeted by the actions in question. This same attitude also strengthens the role of GTZ by making local private and public institutions more familiar with it. The same concern for transparency is far less evident in bilateral co-operation.

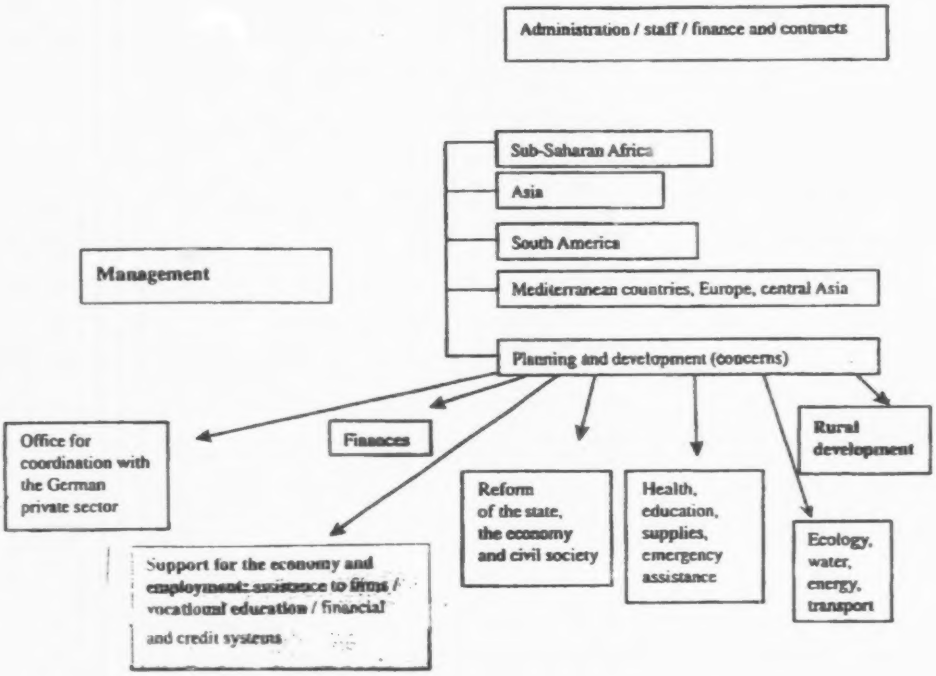
4.2 Organization and aims: 'think globally but act locally'

Three horizontal themes run through all the projects, namely the fight against poverty with a view to halving the number of the poorest people in the partner countries by 2015, the equality of men and women, and protection of the environment and resources.

The action of GTZ may be summed up in terms of the following four criteria:

- Concern that objectives and/or project results should be sustainable, whether in terms of resources or concepts. This requires that a project should be flexible so that it can be geared to local needs and the way they change with time.
- Target group participation. German co-operation has pioneered the development of 'investigation coupled with action' as a working principle. The search for a consensus prevents projects from drifting in an authoritarian fashion towards actions whose 'targets' become simple agents in the implementation of ideas that are not their own.
- Minimalist intervention. The firm desire to take over from local initiative as little as possible is a natural outcome of the consensus principle.
- Optimal use of internal (or German) resources and those of the partner countries. The former is illustrated in reliance on the private sector in financing some development with the support of GTZ know-how. From the external angle, GTZ readily supports the most dynamic elements in its target group, besides exploiting local expertise as fully as possible.

GTZ activities may be classified geographically and thematically. The organization of the undertaking is shown in simplified form below:


Administration / staff / finance and contracts
Management
Sub-Saharan Africa
Asia
South America
Mediterranean countries, Europe, central Asia
Planning and development (concerns)
Office for coordination with the German private sector
Finances
Support for the economy and employment: assistance to firms / vocational education / financial and credit systems
Reform of the state, the economy and civil society
Health, education, supplies, emergency assistance
Rural development
Ecology, water, energy, transport

GTZ thus has at its disposal the human and financial resources for it to be innovative and open to the private sector and communication, and flexible in its working concepts. It provides its expatriates with a measure of autonomy in that they achieve aims established with the partners. However, because of the care it invests in determining the aims of its own projects, it sometimes displays a certain lack of flexibility in the field when ensuring their consistency with the objectives of schemes financed by other bilateral or multilateral co-operation ventures.

Aims of GTZ in the area of vocational education:[7]

- assist in determining the prime obligations of countries in the South and the basic preconditions for vocational education in the formal and non-formal sectors;
- determine the mechanisms for co-operation between these countries and their economies.

The scale of the action is different: GTZ seeks to act at macro and meso levels.

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[7] 7. GTZ, Berufsbildungspolitik und – planung, www.gtz.de

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Germany analyzes the role of vocational education from the political and economic standpoint in the same way. However, in its sectoral policy, its priority is to support the government of a particular country which can thereby improve the basic conditions for its economy to benefit from effective vocational education.

German co-operation acts as an intermediary between the partner country and its formal and non-formal economic environment. Switzerland begins by positioning itself within the economic environment to support reform by the government concerned in appropriate cases. Its approach is 'bottom-up' whereas Germany acts from both the top down (the foreign government) and the bottom up (civil society and economic circles).

4.3 Germany: a global vision of vocational education

In the 55 countries in which GTZ is active in the area of vocational education, 42 projects relate to continuing education in modern firms, the non-formal sector or centres (management and training of trainers), 30 projects provide support to reforms of initial vocational education, at either ministerial or regional level, and 16 projects establish or consolidate dual system training apprenticeships.

GTZ activity is open and adjusted to the organizational patterns of the particular country concerned. A single country may combine the three types of vocational education. Thus projects in South Africa provide support for the reform of initial vocational education, but also the training of staff who provide vocational education and the continuing training of metallurgists. In Uganda, support to the Ministry of Education is accompanied by a project to support dual system apprenticeship and a cash injection for the renovation of a number of training centres.

Whether in Ethiopia, Benin, Tanzania or Swaziland, GTZ operates essentially at two levels, namely that of the government of partner countries, on the one hand, and with intermediate institutions such as professional associations or training centres, on the other. The government concerned guarantees provision of what it views as the basic preconditions for vocational education. It may or may not enable it to be labour market oriented. GTZ works to ensure that this government takes account of economic circumstances in the country when reaching its decisions.

One of the first tactics of GTZ in a partner country is to bring together all those with a stake in vocational education, seeking a consensus among the various players involved in its project. Often active in national reforms of vocational education, GTZ begins by establishing direct contact between those with an interest in such education who may not have regular opportunities to discuss it together (government, the private sector, international donors operating in the field of vocational education) and to seek a consensus. Discussion is the starting point for the action it will take vis-à-vis ongoing reform in a country.

To increase the efficiency of vocational education in Swaziland, GTZ has established a tripartite commission on which the government, professional organizations and trade unions are represented. Together, they have introduced a system of vocational education geared to production. The system encourages firms to become involved in education of this kind by accepting to train young people with or without formal qualifications at their production sites.

Furthermore, GTZ is always ready to take part in discussions with other bilateral or multilateral co-operation initiatives. This applies to Burkina Faso or Uganda, in which the main donors agree as to how they should share the market for education.

GTZ does not distinguish between formal and non-formal vocational education, with the latter taken fully into account in its deliberations.

In terms of content, the operational focus of courses is clearly prescribed: vocational education has to satisfy economic needs and be responsive to the labour market, which is why the private sector is sometimes supported in encouraging a policy for vocational education (Swaziland, South Africa) within the human resources departments of businesses in modern sectors.

Following devastation of the economic and political infrastructure in Rwanda, GTZ invested in the initial and non-formal vocational education of young people. From primary to secondary school and from technical school to non-formal kinds of apprenticeship, the aim has been to provide the country rapidly with the human resources needed to rebuild it.

Vocational education is regarded as among the determining factors in consolidating a country's economic growth. Social considerations take second place although they are taken into account where there is a need to improve existing systems.

An essential feature of GTZ strategy in the area of vocational education is its analysis of the labour market and economic requirements. The private sector is involved at all levels of decision-making in the reform of a system of vocational education.

In Benin, vocational education lacks any real infrastructure. It has branches and courses which have little to do with labour market requirements, and its teachers are inadequately qualified. To compensate for these shortcomings, GTZ has organized a scheme aimed at supporting the private sector so that it is capable of contributing to the reform of initial and non-formal vocational education (traditional apprenticeship). The private sector is involved in:

- the revision of courses in accordance with the needs of firms;
- improvements in continuing education to boost the capabilities of top managers; executives and workers,
- support for traditional apprenticeship with a view to boosting competition in cottage industries.

5. Switzerland

5.1 The Directorate of Development and Co-operation (DDC)

The Directorate of Development and Co-operation (DDC) is part of the Federal Department of Foreign Affairs. Governed by two federal laws, its activities are primarily focused on co-operation for development, humanitarian assistance and co-operation with eastern Europe.

Its financial resources correspond to a little over 0.3 per cent of GDP (FF 7.6 billion in 1999) and cover direct bilateral DDC initiatives, support for Swiss and international support programmes (70 per cent) and multilateral co-operation (30 per cent). The DDC employs 350 European staff in Switzerland and abroad.

In addition to its staff strength, it stands in contrast to France and Germany in the way it delegates its resources to mostly Swiss NGOs. In fact, the DDC uses only 43.8 per cent of its resources for direct action in the field; 42.7 per cent of its other resources are used by Swiss NGOs, agencies or consultancies whose projects have received DDC approval. Three NGOs claim the essential share of 27.1 per cent of the contributions (the DDC covers up to 75 per cent of project financing) and of state projects (which are wholly DDC-funded). They are Helvétas, Intercoopération and Swisscontact, the last of which is the main general contractor for DDC projects.

The DDC has developed sectoral policies in all areas of concern to it. These policies are an asset in imparting transparency and synergy to the initiatives of Swiss private and public players in the partner countries. The

DDC only finances projects designed to satisfy the expectations set out in these sectoral policies.

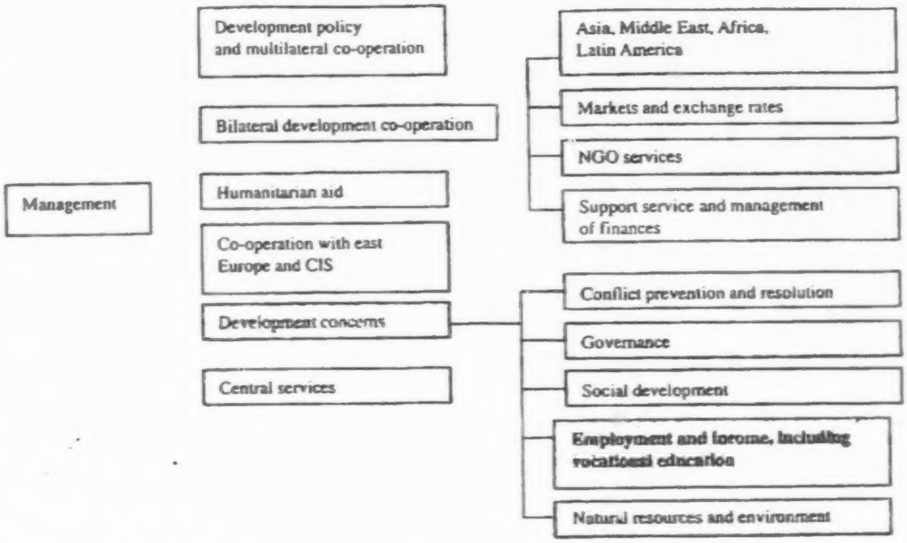
5.2 Aims and organization

Three elements are paramount in the priorities of the DDC or the principles governing its co-operation:

- Concern that its initiatives should be sustainable: means by which projects can be kept going are built into them from the outset. The DDC pays considerable attention to ways in which the human and financial resources of partner countries can be used to preserve the continuity of activities.
- Determination that its action should under no circumstances be a substitute for local initiative in partner countries: the DDC seeks to provide local institutions or individuals with every possible means to assume responsibility for their own future. It therefore supports those who aspire to a better standard of living or organizational activity. This explains the considerable importance attached to the private sector of the economy and civil society.
- Achieving a dialogue with local actors or big international institutions: the institutional support that the DDC offers to local organizations and associations, as well as its presence and ready involvement in discussions with the Bretton Woods and United Nations institutions, make for co-operation based on responsiveness and consensus.

Diplomatic activity and co-operation are integrated: the same office is responsible for diplomatic activity and projects for which the DDC is directly responsible, and co-ordinates those to which it contributes, as well as state projects.

Organization chart


Management
Development policy and multilateral co-operation
Bilateral development co-operation
Humanitarian aid
Co-operation with east Europe and CIS
Development concerns
Central services
Asia, Middle East, Africa, Latin America
Markets and exchange rates
NGO services
Support service and management of finances
Conflict prevention and resolution
Governance
Social development
Employment and income, including vocational education
Natural resources and environment

The outlook of the DDC is unquestionably closer to that of the GTZ than that of French co-operation. The first two co-operation ventures are associated with no significant colonial past and have adopted a resolutely pragmatic and neo-liberal approach to development. They highlight the sustainability of their action and the protection of the environment. Swiss co-operation, which is conducted on a smaller scale than the German initiatives, pursues more specialized activity via NGOs and Swiss charitable organizations. Furthermore, it is stepping up its participation in multilateral ventures. The sense of involvement within Swiss civil society is more intense than in Germany.

5.3 Vocational education in Swiss co-operation

The role of Switzerland vis-à-vis state reforms in vocational education is discreet. It acts locally in the field without entering into partnership with government at all costs.

The two aims of its sectoral policy are:[8]

- to offer appropriate personal and professional qualifications to semi-skilled workers for the crafts and trade sectors and small and medium-sized enterprises;

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[8] DDC, Politique sectorielle de formation professionnelle, Berne, 1994 (annexe).

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- to improve income and living conditions, in the non-formal as well as other sectors, by means of a policy for vocational education geared to job creation and a higher standard of living among disadvantaged groups, with a view to countering poverty and unemployment.

These two prime objectives do not refer to the role of the DDC in relation to governments.

For Switzerland, co-operation should above all support the most underprivileged and those most alienated from the formal education system. It focuses on young people (aged between 15 and 25) in urban or agricultural cottage industries. Switzerland is willing to work with national governments for the purpose of establishing national systems of vocational education with other international partners.

6. Comparative review

In *Table 9* below, comparative aid indicators are given.

Table 9. Comparative aid indicators

	DGCID (France)	**DDC (Switzerland)**	**GTZ (Germany)**
Turnover in FF[9]	33.9 billion in 1998	7.7 billion in 2000	35.5 billion in 1997
European staff	Around 4,000	350	3,000
Diplomatic/ co-operation, links	Yes	Yes	No
Sectoral policy	No	Yes	Yes
Resources for training and education	12.76% in 1998	Around 6% in 2000	—
Priority development concerns	1. Support for economic growth 2. Consolidation of states and democracy 3. The fight against poverty (including vocational education) 4. Support for research and scientific information 5. Pursuit of regional integration and co-operation 6. Additionally, military co-operation with partner countries of France	1. Support for self-promotion 2. Knowledge development 3. Involvement in international dialogue 4. Encouraging solidarity among Swiss society	1. The fight against poverty 2. Working for equality between men and women 3. Protecting the environment and resources
Development agency priorities	1. Sustainable development 2. Basic and vocational education 3. Basic and reproductive health, the fight against endemic diseases 4. Support for the French language		

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[9] French francs.

In the Swiss and German systems of vocational training, the state guides debate, ensures the flexibility of the system and its compliance with economic requirements, and finances schools for vocational education. The private sector (managerial organizations, firms) administers courses (supervision, marking, examinations for apprentices), and is involved in devising the content and form of vocational education. The state and private sector are partners. Furthermore, the federal structure of the political system of both countries precludes government centralization and ensures that vocational education remains decentralized. It thus meets the specific economic requirements of each *Land* or canton.

This political structure accounts for the strong involvement in civil society of Swiss and German co-operation initiatives. Governments also become involved when it comes to establishing the framework for a system of vocational education at national level. However, even where co-operation moves in this direction, Switzerland and Germany are committed to ensuring that the private sector has a significant part to play in state decision-making institutions.

Switzerland is even more cautious in this respect. It only normally intervenes in the establishment by central government of a system of vocational education, by working jointly with other financial backers on a multilateral basis.

Differences in the patterns of intervention may also be attributed to differing views about the nature of education. There are two contrasting trends in European educational tradition: generally speaking, one highlights the supremacy of language, while the other emphasizes the importance of illustration.

As regards the first trend and in the case of numerous countries such as France, the role of theology, philosophy and philology has been to support and justify teaching via the spoken and written word which, in this context, has occupied a central position.

The other educational tradition highlights the importance of practical experience and knowledge acquired via the senses. For John Locke (1632-1704), "nothing is present in the intellect that has not first been present to the senses". Vocational and industrial educational establishments in many countries, including England, Germany and Switzerland, may up to a point be identified with this educational tradition. It is consistent with tasks inseparable from the lives of human beings in their relations with the practical world and the natural sciences, and also compatible with economic activity.

97

Switzerland and Germany both have systems of vocational education involving strong joint management by firms and the state. Both have developed dual-system courses in which young trainees spend half their time at school and the remainder in a firm. Firms working either through professional organizations (as in Switzerland) or on their own (like car manufacturers in Germany) contribute to devising the content of courses, examinations and the general focus of training in a particular sector.

France, Germany and Switzerland have not only built their own systems of vocational education differently; they have also embarked on co-operation for development in accordance with their individual philosophical outlooks. The history of each country undoubtedly accounts for these particular approaches, as well as their finer details, such as the commitment to transparency in German and Swiss co-operation and the more impenetrable nature of French co-operation.

To sum up, action in the field by all tnree countries, which is concerned with vocational education, may be represented as follows. In vocational education, the three approaches complement each other. France attaches special importance to initial vocational education, Switzerland to non-formal systems affecting a majority of young people, with Germany standing mid-way between the two as it seeks to strengthen the role of both government and civil society.

7. Other donors

7.1 The working group for International Co-operation in the Field of Developing Vocational and Technical Skills

A working group for 'International Co-operation in the Field of Developing Vocational and Technical Skills', formed in 1996, serves as a forum in which various international co-operation agencies present their policies in this field, in order both to facilitate information sharing and to improve inter-agency co-ordination of aid practices. Briefs on selected donor policies in TVET are provided below, mainly based upon the information gathered by the International Working Group.[10]

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[10] The full reports of the working group, including reviews of donor policies in skills development, are available at http://www.vetnet.ch/wg

7.2 The African Development Bank

In its Education sector policy paper, the AfDB includes the provision of middle and high-level skills as one of its priority areas (AfDB, 1999). The focus of this priority is to enhance the educational profile of the labour force. Its implementation includes the expansion and/or improvement of secondary technical education and the strengthening of higher education institutions. At the secondary level, the emphasis is placed on supporting demand-driven and flexible TVET systems. However, strategic lines may differ according to specific conditions. While the focus would be on establishing strong partnerships with the private sector in the more advanced economies of the region, in less developed countries the AfDB continues to support governments in the provision of publicly-financed TVET.

The statistical data available on AfDB financing do not isolate TVET. The fact that many training programmes are not part of education projects, but are included in other sectors such as agriculture, industry, and trade makes it difficult to identify the level of investment in skills formation.

7.3 Austria

Austria's aid policy is directed mainly to supporting development of individuals' technical and vocational skills through:

- training of instructors and educational support staff;
- material and financial support to TVE institutions;
- support for the redefinition of programmes to bring them in line with the needs of the labour market.

Austria's initiatives are oriented towards provision of consulting and training services to the small informal-sector enterprises which are absorbing a growing share of the labour force. Its activities in the TVE field are concentrated in Burkina Faso.

7.4 Denmark

During the past decade, Denmark has changed its approach to development assistance from a project-oriented approach to a sector support-oriented approach. This means in principle that DANIDA will support a national-sector framework and specific elements of this framework. DANIDA will consequently not perform its own projects or programmes in developing countries, but support national activities.

In 1995 the Ministry of Foreign Affairs published a sector policy paper on vocational education and training (DANIDA, 1995). It provides detailed information on areas of priority and guidelines on Danish assistance to TVET projects.

In supporting development of the TVET sector, DANIDA considers the following elements important for an effectively functioning TVET sector:

- training is organized according to needs;
- stakeholders, including employees' and employers' organizations, are involved in the management of the sector;
- a sustainable mechanism for financing of recurrent and capital costs is developed;
- training can be shown to cater for the formal as well as for the informal sector.

This strategy has been applied in Tanzania and Zambia and a dialogue for supporting the TVET sector has also been initiated in Eritrea and Malawi.

7.5 The European Commission

The European Commission has given strong support to TVET throughout the period of the Lomé Conventions. In recent years there has been an increasing emphasis to improve the quality, efficiency and relevance of the training provided and to promote on-the-job-training and training for the informal sector.

In November 1994, The European Development Council adopted a Resolution on Education and Training in Developing Countries. The importance of TVET for the creation of the skilled manpower for both formal and informal sectors was then reaffirmed. Besides recognizing the role and the needs of the informal sector, the resolution puts emphasis on the involvement of the private sector in skills development.

The size of the projects shows that vocational education and training is a significant area of co-operation between the European Commission and sub-Saharan countries (see *Table 10* below). It is to be noted that, unlike basic education, vocational education and training has been given priority by ACP countries in their relationships with Europe. Furthermore, it is also important to mention that unlike other donors, the Commission does not apply, in the field of vocational education and training, the sector-wide approach but maintains a project-based intervention. The importance given to the employment dimension of training policies explains this option. For the Commission, applying the sector-wide approach would involve complex co-ordination between education and employment policies.

The analysis of the nature of the project shows a significant change in co-operation patterns. While, within the framework of the previous European Development Fund, the focus was more on the construction and improvement of training centres, recent interventions are aimed at improving the quality of training and ensuring greater responsiveness to labour market needs.

It is expected that TVET will continue to be an important priority for the co-operation between the Commission and ACP countries, including in SSA. In this framework equal attention will be paid to the modern and informal sectors of the economy.

Table 10. European Development Fund (EDF) – Vocational Education Projects in sub-Saharan Africa

Beneficiary countries	**Project title and profile**	**Year of approval**	**Amount EC contribution (in euros)**
Nigeria	Vocational training for telecommunications (NITEL), Human Resource Development	1993	10,500,000
Swaziland	Vocational Education and Trade Institute of Matsapha, Phase II	1993	1,100,000
Swaziland	Institutional strengthening of central Ministry. Teachers' training	1993	5,000,000
Zambia	Zambian Centre for Accounting Studies, Phase II	1993	6,800,000
Niger	TVET Programme (NIGETECH)	1994	3,150,000
Mauritius	Mauritius Institute for Administration and Management	1994	1,205,000
Angola	Industrial Institute of Luanda. Improvement of teaching resources	1994	2,700,000
Guinea Bissau	TVET support project	1995	960,000
Botswana	Vocation Education Project	1996	15,000,000
Kenya	Vocational Training Project LOME IV, Second phase (FORMED Unit)	1996	900,000
Togo	Support for the reinsertion of voluntary returnees	1996	450,000
Madagascar	Training for rural development	1996	1,200,000
South Africa	Professional Competences Development Programme	1997	46,000,000
Mauritius	Police training	1997	550,000
Senegal	Employment Support Programme (PPGE).	1997	600,000
South Africa	Programme for developing new competences and employment (KHUPHUKA)	1998	5,900,000
Niger	Modular Vocational Training Programme for Rural Crafts (PROFORMAR II)	1998	1,850,000
Mauritius	Support to the Training Centre for the Clothing Industry	1999	1,365,000
Niger	NIGETECH II	1999	7,000,000
Guinea	ENAM III	1999	1,980,000
Botswana	Teachers' training college and vocational training centre of Francistown	1999	1,500,000
Senegal	Support of the regional (CRFP) and local (CDFP) vocational training centres	1999	1,500,000
Angola	In-service teachers' training	2000	4,000,000

Source: Candy, L. *et al.* 2001. *L'Éducation et la formation dans les programmes communautaires d'aide extérieure.* République française. Bruxelles: Cellule Entreprises et Coopération.

7.6 Japan

Japan's international co-operation policy gives priority to human resource development, a field that includes technical and vocational education.

Japan's activities in the field of technical education and vocational training have mainly been directed towards capacity building. To this end, Japanese aid has organized seminars and developed courses composed of both classroom and practical components. This form of co-operation has been made in Kenya, the Seychelles, South Africa, Uganda and Madagascar.

The aim is to give participants in vocational and technical training the information and technology needed (and which are available in Japan) in order that the results of training can be shared with a view to raising technical levels and productivity (ADEA, Prisme database, 1997).

Japan's TVE programmes are oriented towards encouraging individuals to master technology and enabling them to acquire the basic knowledge needed to adjust to the rapid pace of social and technological change.

7.7 Sweden

Sweden's policy and strategies can be found in its Policy for Co-operation in Basic Education and Education Reform Document. It stresses the importance of preparing individuals for working life. Consequently, emphasis is placed on the relationship between what children learn in school, and what skills they need in working life. The growing importance of the informal sector is therefore recognized, considering its dominant share in African labour markets.

A survey of all projects/programmes of skills-development components revealed that a total of some US$38 million was allocated for skills-development components (pre-service and in-service training) in Swedish development aid during 1996. Out of this, US$10 million were allocated to support reform of vocational training systems and vocational schools in a total of 17 projects (Working Group For International Co-operation in Skills Development, 2001).

However, at present Sida does not have a specific policy that covers the field of skills development. In the area of institution-based skills development, a policy proposal is being developed.

It will consider the following issues:

- Making primary education more relevant (should the curriculum contain practical subjects?).

- Getting the balance right between general and vocational education, both in formal and non-formal programmes.
- Training for retrainability. It means that training should provide the students with a platform for further training.
- Preparing school-leavers for self-employment.
- Supporting training-materials production.
- Agreeing on the same concepts. Many different ways of describing the concepts of practical subjects exist. Almost all the donors use different concepts. Therefore, it is necessary to try to define and categorize these different concepts.

7.8 United Kingdom

The United Kingdom has recently shifted its priority in relation to TVET. For some years the emphasis has been on post-secondary TVET programmes, including in higher education. Some investments have been made however in the areas of technology and enterprise education at the school level.

The change in ODA[11] priorities regarding skill development has resulted in a reduction of about 40 per cent in the total number of TVET projects, and nearly 80 per cent in sub-Saharan Africa.

8. Trends and issues in aid to TVE

To summarize, considerable amounts of external aid flow to sub-Saharan Africa, and education remains one of the largest fields of bilateral and multilateral co-operation. There has also been a sharp increase in the activity of private funds and non-governmental organizations, the scope of which is not easily measured. Over the past decade or so, aid devoted to technical and vocational education has been changing, with the recognition that the informal sector and the changing structures of the labour market must be taken into account in training programmes.

In sub-Saharan Africa today, the great diversity of forms of aid is raising problems relating to the heterogeneity of international actions, the increased dependence of African countries, and the continuity and co-ordination of this aid. This is documented in the discussion of the case studies.

A number of agencies are in the process of reassessing their strategies for assistance to TVET. These would include DANIDA, DfID, French co-operation, Sida (and the World Bank).

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[11] As of May 1997 the ODA has become the Department for International Development (DfID).

Final remarks

The situation of TVE varies widely across different countries. Delivery systems are quite diverse, combining school-based provision with a number of other places offering TVE. This diversity in provision patterns is associated with great disparities regarding the current state of public TVE systems. Differences in historical, political, educational, cultural and economic contexts largely account for such variations in structures, operating conditions and outcomes. Adopting a comparative perspective means bearing in mind this interdependence of TVE and other economic and social structures (Maurice *et al.*, 1986).

The economic and financial crisis that has struck the countries of sub-Saharan Africa since the mid-1980s has brought deep changes in the structure of the production system and on the labour market. The end of guaranteed access to public-sector employment has contributed to increasing graduates' unemployment and deteriorating the rate of return of investments in post-basic education.

In this context, TVE systems, originally shaped on the model of the former colonial powers, gradually became unable to train young people with the qualifications demanded by businesses. In addition, TVE became too expensive in a context of structural adjustment programmes and related public spending cuts. In turn, inadequate investment in TVE contributed to its deterioration and further aggravated issues of effectiveness and efficiency. The need to break this vicious circle eventually led to reconsider policy options and delivery patterns.

Today, emerging common trends can be identified. In addition to the specific crisis affecting most TVE systems in sub-Saharan Africa, globalization associated with the rise of a market-oriented paradigm in education shaped the reform process along similar lines. Shifting the policy focus from inputs to outputs, through new financing and certification mechanisms, involving social partners in governance, granting more autonomy to institutions, promoting private providers and company-based training are part of this new approach. In addition, the specific socio-economic conditions of African economies are reflected in an increasing concern for the informal sector and skill development for poverty reduction.

Taking into account the contrasted effects of globalization on national economies in sub-Saharan Africa, some countries may become trapped in a low-skills equilibrium, where comparative advantage and therefore competitiveness through skill acquisition are not key priorities. In such cases, demand for high-level qualifications would remain modest, the challenge being rather to provide basic skills to an increasing number of youth, in order that they might leave school with better levels of attainment as a result of much-expected improvements in basic education.

Further information on the current transformation of TVE systems in SSA is provided through the analysis and discussion of 10 country cases. The presence of both least developed countries and economies enjoying a more diversified economic structure, offers a comprehensive combination of contexts and policies reflecting the diversity of the sub-region and its creativity in the field of TVE.

Part II

Changes in French-speaking Africa: review of four country experiences

Introduction

This part relates to the changes in Technical and Vocational Education (TVE) mainly in four countries of sub-Saharan Africa (Côte d'Ivoire, Madagascar, Mali and Senegal), which form part of the French-speaking zone. At the time of their independence, most of the countries making up this zone had already set up their education and training systems according to the French model. This common initial mould still has an influence on the countries that adopted it.

In fact, even though the mechanisms originally set up might not have corresponded to the reality of local social and economic conditions, they have for the most part been little altered. For a long time the main cause of this was the absence or the low level of representation of the labour force and the enterprises, as well as, more generally, civil society, in face of the respective states.

However, this situation has changed: in fact, given an employment situation that had reached alarming proportions as far as the insertion of young people into the labour market was concerned, in a context of economic crises, the emergence of business representatives and the organization of civil societies provided new conditions. These forces put pressure on the various states to transform TVE so that it responded better to the needs of companies as well as to employment, making a greater contribution to economic and social development.

New orientations that imply new practices, founded on partnerships with private enterprises, are starting to replace the school model that had been all-pervasive, so inward-looking in its attitude that it ignored real labour market conditions. This study deals precisely with these changes of objectives and practices.

It should be noted that this multi-partnership conception in the mode of functioning of TVE has also been progressively adopted even in France, where the training policies, especially at regional level, are now decided upon within the framework of permanent negotiations between the public and private sectors. It is interesting to observe these parallel changes, evolving as they do from the common model adopted in the 1960s.

TVE still provides challenges in terms of change, but, even though training systems are often badly adapted to needs, this is no longer regarded as a disaster. It has become just as important not only to discover interesting innovations that will ensure progress, but also to determine the obstacles of all kinds, and not only those of a financial order, that slow down the necessary evolution. This study deals with that field of discovery.

Chapter I

Review of TVE in four countries (Côte d'Ivoire, Madagascar, Mali, Senegal)

1. Côte d'Ivoire

1.1 The organization of the sector

The TVE system should play an important role in the creation of the 'African Elephant'[1] by furthering the restructuring of the productive sector, the diffusion of new technologies as well as by contributing to the reinforcement of the competitiveness of enterprises. In order to succeed in this project, the Côte d'Ivoire has at its disposal a highly developed TVE mechanism, which includes training courses both within secondary education and in higher education, and a relatively developed area of private operators who provide continuing vocational education.

In spite of being fairly well developed, the sector nevertheless suffers from an institutional inadequacy, manifested by the inconstancy of its management. In fact, created in 1970, the Ministry for Technical and Vocational Education (*Ministère de l'Enseignement technique et de la Formation professionnelle*/METFP) was integrated in 1983 into the Ministry of National Education. Three years later (in 1986), this was broken up and the TVE sector became a ministerial department. In 1996, it was again integrated into the Ministry of Education and Scientific Research. Since January, 2000, the Ministry in charge of technical and vocational education has been named Ministry of Youth, Employment and Vocational Education (MJEFP).

This management instability affects other countries of the region in the same way; it is particularly the case of Senegal, which will be discussed below. In addition to the question of knowing whether it is preferable to hand over the management of TVE to an autonomous Ministry or to give it to the Ministry of Education, the real problem lies in the steering of the system, in particular when it is composed of multiple organs that are more or less complementary (implementation of training, follow-up and evaluation of the system, prospective studies, financing).

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[1] Expression used by Zakpa Komeman, former Minister for Technical and Vocational Education (1996).

The evolution of the configuration of the TVE sector closely follows the main phases of development of the country: enthusiastic growth in the 1970s, crisis of the 1980s, adjustment in the 1990s. Thus, in the 1970s the Côte d'Ivoire undertook an intense review of the relationship between training and employment, a process which was crowned by the passing, in 1977, of a law which brought the reform of education into the foreground, in order to adapt the education system more precisely to the realization of development objectives.

This review carried on into the 1980s with the setting up of the Education's National Conference in 1985 and the organizing of the Days of Dialogue in 1989. This awareness that there was a gap between the supply and the demand of labour took place during a period of economic recession, the rate of growth having become negative (– 4.2 per cent per year on average over the period 1981/1986, – 6.8 per cent from 1987 to 1991).

As from 1990, the context of adjustment has changed the forms of intervention by the state in the TVE sector. This repositioning was translated into the elaboration of a Programme of the Development of Human Resources (*Programme de valorisation des ressources humaines*/ PVRH), which was carried out during the period from 1991-1995. Its recommendations included the following main targets:

- the readjustment of budgetary allocations towards the primary level and pedagogical operating expenditures;
- the stabilization of the wage bill;
- the diminution of expenditures related to social transfers;
- the rationalization of the management of the system;
- the improvement of the capacity to implement policies.

Five years after the implementation of the PVRH, a certain number of adjustment objectives have been obtained, particularly with regard to the following budgetary aspects:

- the limitation of the increase of the wage bill through the reduction of salaries of the teachers recruited after 1991 (the decree of 'soliciting' passed in 1991, held over until April 2000);
- the reduction of social transfers given to students (grants, meals, transport);
- the stabilization of the budget for higher education, in spite of a large growth in numbers;

- the participation of the beneficiaries in the costs of education by the institution of inscription fees (suppressed at the end of one year in primary school).

However, in a global manner, during the period 1991-1995 the objectives linked to the internal and external efficiency of the training system in general, and that of TVE in particular, were not attained. This acknowledgement was justified by the passing of Law No. 95-696, of 7 September 1995, relative to education and to the National Plan for Development of the Education/Training Sector (*Plan national de développement du Secteur Éducation/Formation*/PNDEF) for the period 1998-2010. This Plan, jointly drawn up with the donors, constitutes one of the important stages in the recent evolution of the education system in the Côte d'Ivoire.

It is significant to note that the solutions proposed have evolved at a conceptual level. The notion of adequacy, of training for employment, has been put aside to be replaced by adjustment. The approach in terms of adequacy referred to a planned vision that claimed to take into account the global needs of the economy. It has now been abandoned to the benefit of a more flexible approach that is sector-based and decentralized, qualified as one of adjustment. This evolution of TVE development strategies is the consequence of the economic mutations taking place, which include the reduction of the economic role of the state to the benefit of the market.

1.2 The supply of training

The Côte d'Ivoire's system of TVE is integrated into secondary education, higher education as well as vocational training outside of the school framework. Secondary education has a technical and vocational education stream, side by side with the general education stream. Technical and vocational education has the following objectives:

- *"to give technical and vocational qualifications to students thus allowing them to acquire and to exercise a profession;*
- *to give to populations without employment vocational qualifications which facilitate their insertion into active life;*
- *to give under-qualified populations qualifications which allow them to improve their productivity.*

These assignments are translated into initial and job-related programme actions which result in a diploma or a qualification.

The specialized streams of the establishments of vocational training lead to the delivery of diplomas, certificates or attestations of vocational training" (Article 37).

Higher education is equally comprised of technical and vocational teaching in its first two cycles:

"*The first cycle involves general or vocational training. It must enable the student to increase and diversify his knowledge in the fundamental disciplines, to be trained in vocational education and methods of work*" (Article 54).

"*The second cycle unites training that is comprised of general training and vocational education. This training allows students, on the one hand, to supplement their knowledge, increase their culture, to introduce them to research and, on the other hand, to prepare them for a profession or a group of professions*" (Article 55).

These principles are reinforced by the National Plan of Development of the Education/Training Sector (Plan national de développement du Secteur Éducation/Formation/PNDEF) (1998-2010), of which one of the aims is: "*to offer each citizen the possibility of education and training throughout his/her life.*"

In the Côte d'Ivoire, TVE also has a well-developed mechanism for vocational training tuned to the qualifications of the working population, especially salaried staff in private companies. This segment is essential to the logic of improving work productivity and competitiveness.

As in other countries – especially Senegal, of which mention will be made later – the TVE sector in the Côte d'Ivoire suffers from a deficit of information, which makes it very difficult to judge statistically. In fact, for some years now, the Ministry in charge of TVE no longer produces on a regular or complete basis sector statistics, particularly with regard to enrolments. In the past, the National Agency for Vocational Training (*Office national de la formation professionnelle*/ONFP) was in charge of annually assembling statistics on TVE. With its dissolution, at the end of the 1980s, and because of the management instability, as mentioned earlier, since 1996 there has been no statistical annual yearbook available on public and private technical secondary education.

Thus, as from 1987, it is not possible to follow the evolution of the enrolments due to the lack of time-series data. However, the data available on the public sector of technical education show a dropping off over a long period. Enrolments thus fell from about 17,000 in the 1980s to a little more than 8,000 in 1995 (see *Table 1*). Since then, a clear revival has taken place, with about 27,000 students in secondary-level technical and vocational education for the year 2000/2001, enrolled in 68 institutions.

Table 1. TVE. Evolution in the number of establishments and students[2]

Sector	1983-1984			1984-1985			1985-1986			1986-1987			1987-1988		
	Est.	No.	Girls	Est.	No.	Girls	Est.	No.	Girls	Est.	No.	Girls	Est.	No.	Girls
Public (METFP)	Nd	16,927	3,197	89	16,394	3,247	92	16,829	3,191	74	11,862	2,606	69	10,569	2,509
Total (public and private)	0	43,917	12,617	190	41,648	4,823	196	39,501	11,207	201	39,317	11,828	206	39,941	13,316

Sector	1993-1994			1994-1995			1995-1996		
	Est.	No.	Girls	Est.	No.	Girls	Est.	No.	Girls
Public (METFP)	61	9,219		61	8,367		61	10,802	
Group CI	nd	nd	nd	nd	nd	nd	nd	nd	nd

Source: National Agency for Vocational Education (ONFP) and Ministry for Technical and Vocational Education (METFP) (various years).

To these numbers are to be added those of higher education. The Ministry of Secondary and Higher Education and Scientific Research (*Ministère des Enseignements secondaire, supérieur et de la Recherche scientifique*/MESSRS) administers three universities, four *grandes écoles* (prestigious schools of university level with competitive entrance examinations), and 31 private establishments of higher education with a total number of 60,500 students, of which 14,000 are in the private sector (1996).

Comprehensive figures are available only for 1999. Technical and vocational education (public and private) had 55,135 students and 246 establishments, divided up as follows:

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[2] The year 1983 marks the end of the experimental period of the development of the survey on training. The survey was not yet exhaustive. It neither covered all training establishments, nor did the data capture the overall characteristics of these. It had not yet been completely processed. In 1987-1988, the last year of the survey, the scope of the survey again shrank, due to the closing of the National Office for Vocational Education (ONFP). The data as from 1993-1994 are those worked out on the basis of a cursory examination of the reports drawn up by the Department of Technical and Vocational Education (Direction de l'Enseignement Technique et Professionnel) at the start of the new school year.

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- *Secondary technical education:* 191 authorized establishments, 22,998 students, all cycles included, 53 per cent of girls[3];
- *Technical higher education:* 55 authorized establishments, 32,137 students, all cycles confounded, of which 30,381 are registered for an Advanced Vocational Training Certificate (*Brevet de technicien supérieur*/BTS), and 40 per cent of female students.

It is to be noted that youths in apprenticeship are to be added to the numbers in training in the TVE establishments. There are two types of apprenticeship: the traditional apprenticeship in the craft production workshops of the informal sector and formal apprenticeship.

The craft production workshops of the informal sector are estimated to be around 150,000 in number and receive between 350,000 and 450,000 young people in traditional apprenticeship.

With regard to formal apprenticeship, two projects for out-of-school youth from 14 to 25 are guided by the National Agency for Vocational Training (*Agence nationale de la formation professionnelle*/AGEFOP) (see below). Set up in 1996, they concern:

- vocational training through apprenticeship for various crafts and handiwork professions (6,000 apprentices, of whom 30 per cent are girls);
- distance education in vocational education in the electrical and electronic professions (stopped in December 1999, due to a lack of funds).

Continuing education, which will be taken up further on, should be added to the above-mentioned basic forms of training.

1.3 Expenditure and costs

The process of adjustment previously mentioned naturally had repercussions on the TVE budgets. Thus, as the expenditures of the sector globally progressed during the 1980s (see Table 2), the beginning of the 1990s brought about a rupture and the beginning of a period of budgetary austerity. Since 1996, expansion policies have brought about a definite increase in the TVE Ministry's budget, reaching 26 billion CFA francs in 1999.

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[3] The newspaper 'Le Jour', No. 1205, of Thursday, 11 February, 1999, p. 3.

Table 2. Total expenditures (current + investment) on secondary technical education (in billions of CFA francs)

Year	Technical and vocational education
1986-1987	12.9
1987-1988	13.7
1988-1989	13.4
1989-1990	14.7
1990-1991	15.4

Source: Ministry of Technical and Vocational Education (METFP) (various years).

The operating budget of the Ministry of Technical and Vocational Education for the year 1996 rose to 9,967 billion CFA francs, of which 66.6 per cent was for salaries. This was an increase of 13 per cent over that of 1995.[4]

At the institution level, the budgetary endowment is made in relation to enrolments. These credits are insufficient for the efficient operation of the training structures. They only cover 10 to 30 per cent of the needs in the best of cases. The possibilities for buying basic materials thus become limited.

As for the investment budget, in 1996, it rose to 1.2 billion, of which 800 million was for equipment and 400 million for renovation. It only represented about 10 per cent of the needs of the establishments with regard to the upkeep of buildings and maintenance of equipment. The 400 million reserved for renovation would not even have covered the costs of rehabilitating two or three establishments.

The evolution of unit costs of training per level in the education sector shows that a TVE student at secondary level cost, in 1995, a little more than 400,000 CFA francs, that is, five times more than a pupil in primary school (see *Table 3*). Since the beginning of the 1990s, the unit costs of education are diminishing at all levels of teaching, except at primary level. This evolution seems to reflect a strategy of straightening out the differences to the benefit of basic education.

Table 3. Evolution of unit costs of training, by level, between 1991 and 1995 (in CFA francs)

Levels	1991	1992	1993	1994	1995	An. Ev.
Primary	66,900	68,000	69,100	72,000	77,937	+3.0%
General secondary	158,900	151,200	142,000	144,000	146,977	–3.2%
Technical and vocational secondary	495,500	501,800	461,200	440,000	405,458	–3.9%
Higher education	1,178,500	967,500	769,600	643,000	698,000	-14%

Source: Volume 1 of the National Plan of Development of the Education/Training Sector (Plan national de développement du Secteur Éducation/Formation/PNDEF) 1998-2010, p.12.

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[4] GTZ, sector-based study on Vocational education in the Côte d'ivoire. Volume I: Report. Abidjan, september 1996, p.31.

As already mentioned, the budget of public institutions is allocated by the supervising Ministry. However, these means are sometimes reinforced by the produce of continuing education or services sold by these establishments to enterprises (this point will be taken up below).

1.4 The labour market and employment

Since 1960, the Côte d'Ivoire economy has gone through three phases of evolution. The take-off of the economy took place between 1960 and 1970, and was beneficial for employment.

The 1970s saw the rapid development of employment in the modern sector. Nevertheless, the state was the largest provider of employment in all sectors of the economy. It was in West Africa, in the Côte d'Ivoire, that salaried employment increased the most between 1960 and 1980 (7 per cent per year on average). It then represented more than half of all salaried company staff in the whole of French-speaking West Africa. It was also in the Côte d'Ivoire that the collapse was most noticeable.

The crisis during the period 1980-1990 was marked by unprecedented redundancies, making it clear that there was a growing imbalance between the supply and demand of employment. In all, the decline in salaried jobs represented a loss of more than 90,000 jobs between 1980 and 1992, of which more than a third were in the private modern sector. The data available seem to indicate a resumption of the growth of employment in the modern sector during the second part of the 1990s. Nevertheless, the movement that gathered most momentum concerned employment becoming more and more informal.

Table 4. Evolution of employment

Population	**1990**		**1995**		**1998**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Active population	3,182,000		5,274,532		6,071,958	
Working population	3,630,000	100.0	5,022,539	100.0	5,710,523	100.0
Agricultural sector*	2,547,000	70.2	3,014,277	60.0	3,348,819	58.6
Modern sector **	405,000	11.1	454,254	9.0	552,118	9.7
Informal sector**	678,000	18.7	1,554,008	31.0	1,809,586	31.7

* Apart from food-processing industry.

** Apart from agriculture.

Source: Ministry for Economy and Finance (Ministère de l'économie et des finances, Ministry of Employment and the Civil Service/Agency for the Study and Promotion of Employment (AGEPE – Observatory) (Ministère de l'Emploi et de la Fonction publique/Agence d'étude et de promotion de l'emploi/AGEPE – Observatoire).

The informal sector has progressively taken over the creation of employment (see *Table 4*). Conversely, the small and medium-sized enterprises (SMEs), which were supposed to take the place of the discredited system of public employment, experienced difficulties. In 1993, these enterprises only represented 20 per cent of employment in the Côte d'Ivoire.

Table 5. Distribution of informal-sector employment by trade and gender, 1998

Branches of activity	**Men**		**Women**		**Total**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Mines	4,509	0.0	2,857	0.3	7,366	0.4
Industry	275,465	32.0	88,260	9.3	363,725	20.1
Construction and Public Works (BTP)	53,143	6.0	2,857	0.3	56,000	3.1
Transport	11,429	13.0	5,715	0.6	117,144	6.5
Commerce	260,026	30.0	749,256	78.7	1,009,282	55.8
Services	152,271	17.0	103,500	10.9	256,071	14.2
Total	857,143	100.0	952,445	100.0	1,809,588	100.0

Source: Agency for the Study and Promotion of Employment/AGEPE – Observatory. Survey on the standard of living of households, 1998. (Agence d'étude et de promotion de l'emploi/AGEPE – Observatoire). Enquête sur le niveau de vie des ménages, 1998.

In this context, unemployment is estimated to be high in Abidjan (about 14.6 per cent) and underemployment high in agricultural areas and in the informal urban sector.

A survey carried out by the Agency for the Study and Promotion of Employment (AGEPE) in 3,000 enterprises of the informal sector supplies a few indicators about promising sources of employment (see *Table 5*). They are linked to the professions which concern the transformation of agricultural produce and to maintenance services.[5]

As in most of the countries of the region, the employment statistics do not give information on the insertion and the unemployment of TVE graduates. The implementation of the sectoral adjustment programme (*programme d'ajustement sectoriel*/PVRH) is accompanied by measures to support youth employment and apprenticeship within the framework of the policy for expanding modern apprenticeship.

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[5] AGEPE. Assessment of employment in the Côte d'Ivoire in 1995.

2. Madagascar

2.1 The organization of the sector

Since the beginning of the 1980s, Madagascar has had difficulty in finding the necessary resources for the operation and development of its public education and training system. In a context of economic recession, funding of public education has declined. This downturn has favoured a transfer of a part of the social demand for education to the private sector.

In Madagascar, the first traces of TVE date from the pre-colonial period. It was, in fact, around 1832 that the first workshops were created for technical training. During the colonial era, each large agglomeration was provided with a regional school of industrial and agricultural apprenticeship. After independence, various modes of organization and numerous reforms were applied to TVE. Altogether, these successive changes did not produce the desired results and the sector's performance was deemed to be hardly satisfactory.

The problems noted were, in particular, those of an imbalance between training and employment, an uncurbed growth in public expenditure, and in the bad quality of the training dispensed. This assessment, drawn up at the end of the 1980s, led the Malagasy Government of the time to negotiate, in April, 1992, in Washington, the agreement relating to a credit of 2,382 MAG for the implementation of a Project of Reinforcement of Technical and Vocational Education (*Projet de renforcement de la formation technique et professionnelle/* PREFTEC). This credit agreement for a sum of 16.7 million SDR, signed on 25 June, 1992, came into being on 15 January 1993, and was concluded on 30 June 1999.

Before 1992, Technical and Vocational Education was administered by the Ministry of Secondary and Basic Education (*Ministère de l'Enseignement secondaire et de l'Éducation de base*/MINESEB). After 1992, it was decided to make the TVE sector autonomous again by the creation of a Governmental General Delegation for Technical and Vocational Education (*Délégation générale du Gouvernement à l'Enseignement technique et Formation professionnelle* (DGGETFP), directly attached to the Prime Minister's Office. Confirming this choice in favour of a specific administrative body, the government decided, in 1995, to raise this mechanism to the level of a Ministry of Technical and Vocational Education (*Ministère de l'Enseignement technique et de la Formation professionnelle* (METFP)) with the following assignments:

- to prepare and train the human resources of the country by ensuring a better adaptation of training to employment, according to needs of the short, average and long-term economic development, at a national as well as regional level;
- to further the participation of the professional world, of enterprises in the development and the implementation of governmental policy concerning Technical and Vocational Education;
- to support a national policy for the development of human resources in the production sector, based on the promotion of private initiative and on effective decentralization.

The strategy upon which the PREFTEC was based falls within the framework of the strategies which accompanied the structural adjustment programme. It aimed at three fundamental objectives:

- to set up a technical and vocational education system at the service of the economy, implying a profound restructuring of public establishments of technical education, based on an increased content in vocational education of the training dispensed;
- to monitor the growth of public expenditures allocated to technical and vocational education, and to use efficiently the resources allocated;
- to promote partnership with the private sector in policy development, skill-needs analysis and financing.

The implementation of this project has profoundly changed the institutional environment of TVE. These transformations particularly concern:

- The establishment of a structure of promotion and co-ordination of technical and vocational education composed of:
  - the National Council for Technical Vocational Education (*Conseil national de la Formation technique professionnelle*/CNFTP), of which the aim is to orient policy on the sector towards the needs of the economy and the requirements of employment;
  - an intervention fund, of which the object is to contribute to the financing of vocational education in the public as well as in the private institutions.
- The reinforcement of the public TVE sector, especially by the creation of a Resource Centre of Technical and Vocational Education

Establishments' Personnel (*Centre de ressources des personnels des établissements d'enseignement technique et professionnel*/CERES).

- The improvement of the information system on the needs and the evolution of the labour market by the creation of a National Observatory of Skills and Employment (*Observatoire national des compétences et de l'emploi*) transformed towards the end of the year 1996 into the National Observatory of Employment and Training (*Observatoire national de l'emploi et de la formation*).

2.2 The supply of training

Taking into account Decree No. 97-1356, which lays down the general structure of TVE and the organization of various types of training, two categories of establishment of technical and vocational education are defined within the Ministry: (i) a Vocational Education Centre (*Centre de formation professionnelle*/CFP; and (ii) a Technical and Vocational *Lycée* (*Lycée technique et professionnel*/LTP).

The supply of TVE can be broken down into three categories and streams: (i) Vocational Education leading to Qualifications (*Formation professionnelle qualifiante*/FPQ); (ii) Initial Vocational Education (*Formation professionnelle initiale*/FPI); and (iii) General Technological Training (*Formation technologique générale*/FTG).

The number of TVE students at secondary level is of a relatively modest size, fewer than 20,000 in 1996/97, although it slightly increased in the course of the 1990s (see *Table 6*). This progression is even more remarkable considering that, at the same time, enrolments in General Secondary Education declined.

Table 6. Enrolments in TVE and General Secondary Education[6]

Years	Technical and vocational education	General secondary education	Total	Share of TVE (in %)
1990-1991	15,174	321,772	336,946	4.5
1996-1997	18,592	307,274	325,866	5.7

Sources: Ministry of Secondary and Basic Education (Ministère de l'Enseignement secondaire et de l'Éducation de base/MINESEB).

Ministry of Technical and Vocational Education (Ministère de l'Enseignement technique et de la Formation professionnelle/METFP).

ONCE. 1997. Repertory of Establishments and Technical and Vocational Centres in 1996. (Répertoire des établissements et centres de formation technique et professionnelle de 1996).

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[6] Including the numbers of students in public and private education.

121

The increase in the number of students in TVE mainly profited Technical *Lycées* and, within them, the industrial sections. Female participation increased significantly, including in the industrial sections. They represent 27 per cent of the total number of students for the year 1998-1999 (see *Table 7*).

Table 7. TVE enrolments by trade and gender (public institutions only)

Sectors	**1991-1992**		**1998-1999**	
	Total	**Girls**	**Total**	**Girls**
Vocational Education Centre (CEP)				
Civil engineering	378	267	832	150
Industrial	386	311	783	598
Tertiary	–	–	59	59
Overall	**1,212**	**578**	**1,674**	**807**
Technical and Vocational Lycée (LTP)				
Civil engineering	3,003	500	3,446	432
Industrial	1,326	139	2,431	215
Tertiary	2,110	1,168	2,528	1,636
Agricultural	51	25	72	17
Overall	**6,490**	**1,832**	**8,477**	**2,300**

Source: Planning Department of the METFP (Direction de la Planification du METFP).

2.3 The expenditures and the costs

The Malagasy TVE establishments are characterized by a lesser dependency on state subsidies. This relatively high degree of autonomy is true of both the *lycées* as well as the centres of vocational education.

The state funding represents a little less than 50 per cent of the budget of Technical *Lycées*. The vocational programmes leading to a qualification generate nearly 18 per cent of the revenues, and the training dispensed at BTS level is not far off 13 per cent (see *Table 8*).

122

Table 8. Distribution of the Technical and Vocational Lycée (LTP) resources per province (in MG francs)

Headings	Total	%
Subsidy	1,011,710,350	46.8
Registration fees, examinations	261,849,976	12.1
Fellowships	9,240,000	0.4
Productive activities	70,308,448	3.3
Vocational education leading to Qualifications (FPQ)	379,891,965	17.6
Advanced Vocational Training Certificate (BTS)	271,862,822	12.6
Other training courses	38,795,000	1.8
Renting	5,567,640	0.3
Parents' association	7 392 360	0.3
Local Development Committee grant	104,000,000	4.8
Total	**2,160,618,561**	**100.0**

Source: Madagascar Engineering, 1999. Audit of the Technical and Vocational Education Establishments (Madagascar Ingénieuring, 1999. Audit des établissements de formation technique et professionnelle).

The Vocational Education Centres (CFP) are a little less autonomous financially than the *lycées,* to the extent that 66 per cent of their resources comes from government subsidies (see *Table 9*). The second highest revenue comes from productive activities, with a little more than 20 per cent.

Table 9. Distribution of resources of vocational education centres (CFP) per province (in MG francs)

Headings	Total	%
Government subsidies	507,504,500	66.4
Investments	26,449,600	3.5
Registration fees, examinations	29,274,740	3.8
Fellowships	8,720,000	1.1
Productive activities	161,170,071	21.1
Vocational Education leading to Qualifications (FPQ)	27,039,300	3.5
Renting	3,565,500	0.5
Parents' association	492,500	0.1
Tota	**764,216,211**	**100.0**

Source: CRC SOGEMA. Madagascar Engineering. 1999. Audit of technical and vocational education establishments (Synthesis report. Findings and recommendations). (Audit des établissements de formation technique et professionnelle (Document de synthèse. Constats et recommandations)).

The unitary costs in Malagasy technical and vocational education are highly variable from one establishment to the other, according to the training offered. It is not surprising that the establishments that offer a tertiary type of education have, on average, lower unitary costs than the others (see *Table 10*).

Table 10. Unit (current) costs by trade area (in thousands of MG francs)

Specialities	**Vocational Education Centre (CFP)**	**Technical and Vocational Lycée (LTP)**
Civil engineering	2,420.4	1,418.2
Industrial	2,198.4	1,418.2
Tertiary	–	1,033.4
Agricultural	–	1,715.3

Source: CRC SOGEMA. Madagascar Engineering.1999. Audit of establishment of technical and vocational education (Synthesis report. Findings and recommendations) (Audit des établissements de formation technique et professionnelle (Document de synthèse. Constats et recommandations)). Antananarivo.

However, although the contents of the courses have an influence on the production costs of the establishments, the relatively high costs of the Vocational Education Centres (CFP) can be explained above all by the low number of registered students. In a context where the demand is low, the underutilization of the places available increases the unit costs, given that the fixed costs remain quite high. These would be about 865,000 MG francs in the Vocational Education Centres (CFP) and 320,000 MG francs in the Technical and Vocational *Lycées* (LTP); they represent 55 per cent of the average total cost of the Vocational Education Centres (CFP), against 31 per cent for the Technical and Vocational *Lycées* (LTP).

An evaluation of the unit current costs can be assessed by looking at the audit of the establishments dependent on the Ministry for Technical and Vocational Education (METFP), undertaken in 1998-99, as well as at the budgetary data of this same Ministry. These costs include both the remuneration of the teaching staff and non-teaching staff paid out of the general budget, the salaries of the personnel paid out of the establishments' operating budgets and the establishments' other operating expenditures. According to these data (see *Table 11*), the public expenditure per student in technical *lycées* is about 1,000,000 MG francs; it is more or less comparable to that of Secondary General *Lycées*. This can possibly be explained by the relatively heavy weight of commercial education, which is generally less costly than other forms of technical training. On the other hand, the unitary cost in the Vocational Education Centres (CFP) is on average much higher than that of the Technical and Vocational *Lycées* (LTP). In fact, the expenditure there is about 1,850,000 MG francs per student, that is, 1.8 times that observed in technical *lycées* or again four times that of general education colleges and 18 times the unit expenditure in primary schools.

Table 11. Unit current cost of educational activities in the Vocational Education Centres (CFP) and the Technical and Vocational Lycées (LTP) in (a) 1998

	Unit cost (in 1998 MG francs)	**Unit cost as a multiple of the unit cost in :**		
		Primary schools	**General Education Colleges (CEG)**	**General Education Lycées**
CFP	1,848,700	18.08	4.47	1.97
LTP	1,041,400	10.18	2.52	1.11
Total	1,174,500	11.49	2.84	1.25

Sources: CRC SOGEMA. Madagascar Engineering. 1999. Audit of technical and vocational education establishments (Synthesis report. Findings and recommendations). (Audit des établissements de formation technique et professionnelle (Document de synthèse. Constats et recommandations)). Antananarivo.

(a) Not including the students in Vocational Education leading to Qualifications (FPQ).

2.4 The labour market and employment

The data presented in this part are mainly extracted from the results of the Priority Survey on Households 1999 (EPM), undertaken by the Statistical Department of Households of the National Institute of Statistics (*Direction des Statistiques des ménages de l'Institut national de la statistique*/INSTAT), published in the month of August, 2000.

The Malagasy labour market remains very rural, agriculture representing about 77 per cent of total employment. Insertion into the labour market takes place very early in a rural environment, in contrast to an urban environment. Thus, the rate of children's occupation from the age of 7 to 15 years diminishes in relation to the level of urbanization (2.7 per cent in the capital, 6.8 per cent in the other large urban centres, 11.4 per cent in the secondary urban centres, about 31.1 per cent in a rural environment).

Throughout the country, there are about 200,000 unemployed, that is, an unemployment rate of about 2.8 per cent. These are for the most part active young people who have difficulty in finding employment. The highest rates can be observed in the 15 to 20 year-old age group (6.9 per cent), then in the 20 to 25 year-old age group (5.8 per cent). About 58 per cent of all unemployed belong to these age groups and more than 70 per cent of the unemployed are younger than 25 years of age.

According to a well-known rule established for developing economies, the unemployment situation diminishes in relation to how far away one is from the capital (10.4 per cent in the capital, 7.5 per cent in the other large urban centres, 4.5 per cent in the secondary urban centres, 2 per cent in the rural zone).

The level of instruction greatly influences the unemployment situation. In fact:

- 84 per cent of the unemployed have no education;
- 62 per cent have primary-level education;
- 13 per cent secondary level; and
- 3 per cent come from university.

Specific data are not available for TVE graduates. No tracking system is undertaken by the establishments. This is normally the job of the National Observatory for Employment and Training (*Observatoire national de l'emploi et de la formation*), which apparently was unable to carry out the task due to budgetary restrictions.

However, according to a survey undertaken in 1997 (Ramilison, 2000), 45.3 per cent of the former students of TVE had found a stable job less than a year after having left the training system in the urban area of Antananarivo. The average length for obtaining a first stable job for a person leaving TVE was 14.7 months, that is, slightly superior to the period of time of those leaving higher education (13.7 months).

3. Mali

3.1 The organization of the sector

In Mali, establishments of technical and vocational education have developed in an uneven manner, according to the period. From 1963 to 1988: 34 establishments were created, of which eight by the state. With the reform of 1982 and with socialism, the state took over the education system. Only the Catholic Church openly gave help in the creation of schools. Furthermore, general education was privileged within a process of replacement of foreign professionals by nationals.

Progressively, the operation of the education system received criticism, some coming from the National Seminar on Education in 1978, which emphasized the following:

- the maladjustment of those trained to the world of work;
- the high levels of drop-out and repetition;
- the high cost of education to the state.

Later, the state turned to three types of measures in order to adapt the system:

- promoting rural education;
- creating Centres for Practical Guidance (*Centres d'orientation pratique*/COP);
- inciting the creation of private schools.

The formal education system in Mali (see *Chart 1*) includes three types of education:

- *Fundamental education* divided into two cycles. The first, of six years in length, leads to the Primary Studies Certificate (*Certificat d'études primaires*/CEP) and the second, of three years in length, to the Diploma of Fundamental Study (*Diplôme d'études fondamentales*/DEF), equivalent to the French Diploma for Studies in the First Cycle (*Brevet d'études du premier cycle*/BEPC).
- *Secondary education*, three years in length in secondary general education, which leads to the *Bac*. At this level, the TVE sector is composed of three types of programmes: the Vocational Training Certificate (*Certificat d'aptitude professionnelle*/CAP) in two years; Technical *Bac* in three years, and a Technical Certificate (*Brevet de technicien*/BT) in four years.
- *Higher education*, of which the length varies according to the establishment and the studies taken up. In principle, the higher education schools give vocational training.

The two latter types of education are entirely dependent on a Ministry: the Ministry of Secondary and Higher Education and Scientific

Research (*Ministère des Enseignements secondaire, supérieur et de la Recherche scientifique*/MESSRS).

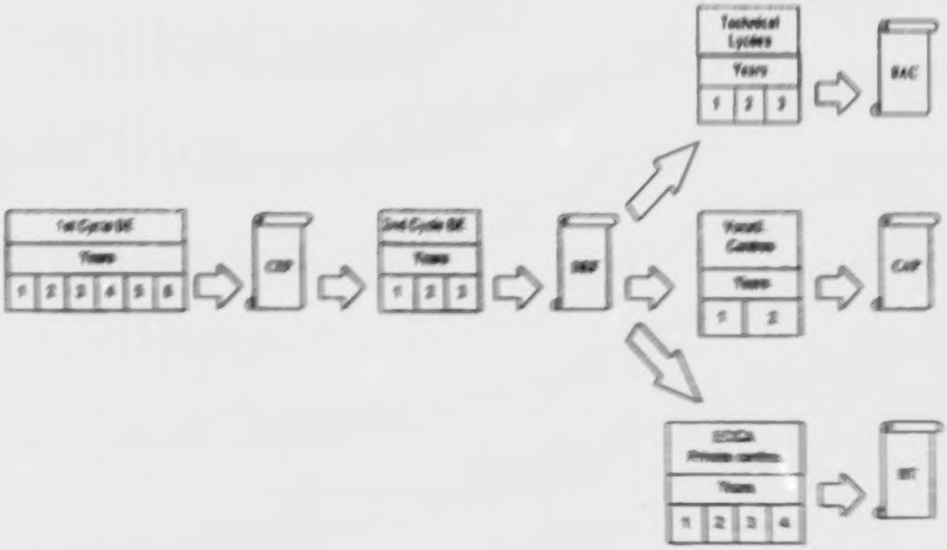
3.2 The supply of training

TVE in Mali has two objectives: professional insertion and the taking up of studies at a higher level. Thus, an individual possessing a Vocational Training Certificate (*Certificat d'aptitude professionnelle*/CAP) has the possibility either of insertion into the labour market or of taking a Technical Certificate (*Brevet technique*/BT).

Technical education leading to the *Bac* is only given in one establishment and that is public.

Such secondary training has been complemented, in the last few years, by the emergence of other types of vocational education, at the *Bac* + 2 level, terminating in an Advanced Vocational Training Certificate (*Brevet de technicien supérieur*/BTS), BTS or a University of Technology Diploma (*Diplôme universitaire de technologie*/DUT).

Chart 1. The education system in Mali. Basic education (BE) and secondary technical and vocational education


1st Cycle BE
Years
1
2
3
4
5
6
CEP
2nd Cycle BE
Years
1
2
3
DEF
Technical Lycées
Years
1
2
3
BAC
Vocat. Centres
Years
1
2
CAP
ECICA
Private centres
Years
1
2
3
4
BT

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It is necessary to try to position TVE in relation to secondary education. Secondary school enrolments have increased quite considerably in recent years. Whilst general education continues to enrol the majority of students who take up secondary education, TVE's portion is far from being negligible: it has increased over the last few years so that it now represents more than a third of the number.

As far as schooling in secondary education is concerned, the differences between the sexes is still great, boys constituting 67 per cent of the numbers against 33 per cent for girls (see *Tables 12* and *13*). This phenomenon is more pronounced in secondary general (69 per cent of boys, 31 per cent of girls) than in technical and vocational education (64 per cent of boys, 36 per cent of girls).

Table 12. Enrolment trends by type of education and gender

Types of education	**1997-1998**			**1998-1999**			**1999-2000**		
	M	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
General secondary	28,943	12,985	**41,928**	33,302	14,615	**47,917**	36,265	16,065	**52,330**
Technical and vocational	12,489	6,940	**19,429**	15,622	9,907	**25,529**	20,379	12,711	**33,090**
Total	40,832	19,925	**60,757**	48,924	24,522	**73,446**	56,664	28,776	**85,420**

Source: Ministry of Education, 2000, Decennial Programme of Education/PRODEC: PRODEC, Survey on secondary education in Mali, database (Ministère de l'Éducation, 2000, Programme décennal de l'éducation/ PRODEC, Enquête sur l'enseignement secondaire au Mali, base de données).

Table 13. TVE enrolment trends by status, gender and type of training

	1997-1998			**1998-1999**			**1999-2000**		
	M	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**
Private	7,760	4,454	**12,214**	10,180	7,006	**17,186**	13,673	9,066	**22,739**
Public	4,729	2,486	**7,215**	5,442	2,901	**8,343**	6,706	3,645	**10,351**
Total	12,489	6,940	**19,429**	15,622	9,907	**25,529**	20,379	12,711	**33,090**
CAP – industrial	2,491	339	**2,830**	2,660	495	**3,155**	2,821	377	**3,198**
CAP – tertiary	4,320	3,063	**7,383**	3,661	3,245	**6,906**	3,406	3,344	**6,750**
BT- industrial	1,714	299	**2,013**	2,522	360	**2,822**	4,066	532	**4,598**
BT – tertiary	3,964	3,239	**7,203**	6,779	5,807	**12,586**	10,086	8,458	**18,544**

Source: Ministry of Education, 2000, Decennial Programme of Education/PRODEC, Survey on secondary education in Mali, database (Ministère de l'Éducation, 2000, Programme Décennal de l'éducation/PRODEC, Enquête sur l'enseignement secondaire au Mali, base de données).

In the space of two years, the number of students preparing for the Technical *Bac* and Technical Certificate (BT) has risen well beyond the numbers of students in preparatory training for the Vocational Training Certificate (CAP), an evolution which tends to reinforce the predominance of students in tertiary training, a majority in the Technical *Bac* and Technical Certificate (BT) (about 80 per cent of the number of students, as against a little more than two-thirds preparing the Vocational Training Certificate (CAP), and three-quarters of the whole of TVE).

Alongside the formal TVE a system of apprenticeship exists that is called traditional. It bases its practices on the tradition where the apprentice is trained by an artisan employer. The mode of transmission is essentially based on observation and imitation. This system is part of what is usually called the informal sector.

In the majority of cases, apprenticeship gives a know-how. However, to the extent that on-the-spot training is preponderant, "apprenticeship offers few possibilities of learning the fundamental principles and theories underlying the practice".

This general assessment is reinforced by the examination of the conditions in which the training takes place: lack of workshop equipment; illiteracy or a low level of schooling of those learning as well as of the employers. In addition, the system often encourages a passive attitude in the apprentice; the employer reserves certain tasks for himself (trade secrets) and only shows them to the learner if the latter 'behaves well'. Lastly, the learner has few opportunities of receiving a complementary form of training.

However, action has been taken in the past few years to develop and finance a supply of training possibilities both for the apprentices and their employers.

In fact, the supply of TVE in Mali has various similarities to situations encountered in the other French-speaking countries studied, like Senegal: low intake capacity, geographical concentration in the region around the capital, a tendency to imbalance in the supply of training that favours the modern tertiary sector to the detriment of agriculture or the informal sector, which nevertheless constitute the country's dominant activities.

Even though the TVE sector in Mali is today undergoing a certain relatively steady extension, and benefits from precise policy directions and well-defined priorities, this is not sufficient to guarantee suitable development both in quantity and in quality.

The first question which is raised, or uncertainty which exists, is: who should be responsible for the necessary transformation and adaptation of TVE? The state alone does not appear to be able to undertake it and, anyway, hesitates about maintaining this sector under the control of the Ministry of Education or handing it over to the Ministry of Employment.

The harmonious development of TVE first of all requires the financial means to support it. The means of the state remain limited and the resources put aside for training by enterprises or of the Support Fund for Vocational Education and Apprenticeship (FAFPA) remain modest. These means are however indispensable in order to improve the equipment of the establishments and to recruit qualified trainers, in order to ensure training of quality responding to the needs of enterprise.

3.3 The expenditures and the costs

For the year 1999, the technical and vocational education sector represented 10 per cent of the total expenditure on education (that is 4 billion out of 40 billion CFA francs), with a little less than 3 per cent of the total number of students, including students from the private sector (see *Table 14*). Related to the entirety of current expenditures for secondary and higher education, the weight of secondary vocational education was, in 1999, 20 per cent (that is, 3.6 billion out of a total of 18 billion CFA francs).

Table 14. Distribution of current expenditures (%). Ministry in charge of secondary and higher education (1999)

Sector	**(%)**
General and technical secondary	39.3
Vocational secondary	20.0
Higher	40.4
National Centre for Research (Centre National de la Recherche/CNRST)	0.2
Units for Training and Support to Enterprises (UFAE)	0.1
Total (18 billion FCA francs)	**100.0**

Source: Ministry of Education, Review of public expenditures, Bamako, June 2000. (Ministère de l'Éducation, Revue des dépenses publiques, Bamako, June 2000).

The data available on the unit costs show that a student in technical and vocational secondary education costs the public ten times more than a student in primary school, this ratio being to the order of 25 for one student in higher education.

However, it is necessary to note that these figures reduce the real cost of TVE. In fact, the unit cost, as calculated in the review of public expenditure, relates the expenditure of the sub-sector (4.2 billion CFA francs) to the number of students in the public and private sectors (26,784), that is, 157,000 CFA francs per TVE pupil, against 15,000 CFA francs in the first degree. In reality, the major part of the expenditure is set aside for students in the public sector. The relationship between TVE expenditure, disregarding fellowships, and public-sector enrolment would give a much higher result than the 'official' unit cost. The information available does not allow for precise calculations to be made, but it can be noted that the ratio between the cost of a pupil in technical and vocational secondary education and one at elementary level, without doubt, is obviously clearly higher than 10.

This confusion, due to the fact that the private-sector enrolment has been taken into account by the Ministry, also probably explains why the unit cost of general secondary (161,000 CFA francs) appears to be slightly higher than that of TVE. This contains a paradox which can probably be explained by the lack of precision of the mode of calculation.

The information available about the nature of 'recurrent' expenditures of the Ministry in charge of secondary and higher education shows that the most important item is that of fellowships, that is, 29 per cent of the total, a little higher than that of personnel costs (see *Table 15*). These represent only 26 per cent, which is an astonishingly slight proportion. The fellowships concern above all higher education. The subsidies given to private education represent a significant item, 10 per cent of expenditures, which, added to the fellowships, gives an idea of the extent of the Ministry's intervention in the private sector.

Table 15. Recurrent expenditures by nature (%). Ministry in charge of secondary and higher education (1999)

Nature of expenditure	**(%)**
Personnel	26.0
Didactic material	19.0
Fellowships	29.0
Subsidy to private education	10.0
Non-statutory staff	3.0
Others	13.0
Total (19 billion CFA francs)	**100.0**

Source: Ministry of Education, Review of public expenditure, Bamako, June 2000 (Ministère de l'Éducation, Revue des dépenses publiques, Bamako, June).

Regarding the sub-sector of vocational secondary education, the data on the structure of expenditure confirm the relatively low level of the item regarding personnel and the weight of fellowships and allocations (see

132

Table 16). The importance of expenditure on material should be underlined, related as it is to the implementation, in 1999, of the Project for the Consolidation of Vocational Education. The priority given to the TVE sector by the government is reflected in the size of the investments related to the Project, which, in 1999, represented 56 per cent of all funds given for equipment by the Ministry.

Table 16. Distribution of expenditures in vocational secondary education (ordinary budget). Ministry in charge of secondary and higher education (1999)

Nature of expenditure	**(%)**
Personnel	20.6
Material	45.1
Fellowships and allocations	20.5
Others	13.8
Total (3. 6 billion CFA francs)	**100**

Source: Ministry of Education, Review of public expenditure, Bamako, June 2000 (Ministère de l'Éducation, Revue des dépenses publiques, Bamako, June 2000).

These efforts must not mask the state's funding difficulties with regard to technical and vocational secondary education. The public establishments of TVE are very few (11). Their lack of resources is especially perceptible at the level of the means related to training, which are often insufficient. The implementation of Units for Training and Support to Enterprises (UFAE) (see below) and of the Support Fund for Vocational Education and Apprenticeship (FAFPA) has recently opened up new perspectives by permitting the establishment to generate income through continuing education. However, altogether, these practices are so far little widespread. In this context, and faced with a high level of social demand, the call upon the private sector represents an important strategy in the development of TVE and of general education.

3.4 The labour market and employment

The situation of the labour market in Mali presents characteristics that have already been encountered, as described in the section on the Côte d'Ivoire and Madagascar. The end of state-led employment in the modern sector has resulted in production and service activities becoming more and more informal, the private sector having hesitated in taking them on. If the progressive privatization of the economy seems to have produced positive effects on the rhythm of growth[7], these effects have not been sufficiently carried over into employment.

The few available data on the labour market indicate a rate of urban unemployment that is quite high, to the order of 10 per cent, and an informal sector that represents about 22 per cent of the total working population, that is, a little more than in Senegal (20 per cent), but a little less than in the Côte d'Ivoire (Charmes, 1996).

A study undertaken in 1996 by the Employment and Training Observatory (OEF) offers a few elements about the insertion of TVE graduates into the labour market (Orivel *et al.*, 1996). The survey was carried out on the basis of a sample of young people having obtained their diplomas in 1993 in the regions of Mopti and Gao (that is, 74 CAP and BT graduates). The modesty of the size of the sample and its concentration in the north of the country demands a certain prudence as to the interpretation of the results. They cannot, for example, be extrapolated to cover the whole of the territory and all those with CAP and BT diplomas.

After a period of 36 months on the labour market, the rate of employment measured by the survey was about 44 per cent, that is, a quite mediocre result. It can, in fact, be estimated on this basis that each year only 15 per cent of the cohort of graduates finds employment.

In addition, the results show that there is a large inequality in the possibility of access to training according to socio-economic categories. Thus, the children of farmers are highly disadvantaged in relation to children of salaried staff of the public sector.

Another characteristic of the training system is that preparation for self-employment is scarcely available. Less than 4 per cent of those graduates surveyed have created their own job.

Lastly, it must be underlined that the high level of unemployment is only tolerable to the extent that 60 per cent of those declared as unemployed have activities that help them to survive (low-paid jobs carried out in the informal sector).

The study concluded, above all, that there was a quantitative inadequacy between the supply and the demand for qualifications. According to the author, it is first the insufficient capacity of the modern sector to absorb which determines the low level of insertion of TVE graduates (and also those from higher education). Nevertheless, the fact that only 46 per cent of employed graduates have found employment that corresponds to their training illustrates the necessity of establishing a closer link between the supply of training and the world of work.

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[7] – 1.2 per cent per year on average between 1987 and 1991, 2.3 per cent in 1994, 6.4 per cent in 1995, 4.0 per cent in 1996 (Hugon and Pagès, 1998), 5 per cent in 2000 but a zero growth performance is anticipated for 2001.

4. Senegal

4.1 The organization of the sector

After the various French-speaking African countries gained their independence, TVE was not governed by a specific legislation. The Overseas Code of Work (*Le Code du travail d'Outre-mer*) of 15 December, 1952, as did the Code of Work of 15 June, 1961, only legislated on contracts relating to work and drawn up between the head of the enterprise and his/her employee.

The first important law to concern TVE, passed in 1967, made it impossible to distinguish on a conceptual level between technical training and vocational education; in respect to this, it is quite revealing of the vagueness which surrounded the philosophy and the objectives of TVE.

In order to remedy the deficiencies and the heaviness of this first text, Senegal passed on 6 June, 1971, the law regarding the Orientation of National Education, which was given the responsibility of defining the finalities, general objectives and the main themes of the policy of State Education and Training. The Secondary Intermediate Practical Courses (*enseignement moyen pratique*) were then created to receive 80 per cent of the students coming from primary school. A particular mission was to facilitate the guidance of young people either towards the labour market, or towards TVE. This principle, called vocational guidance[8], reflects a concern for the limits of general and academic education when confronted by demands for competitiveness and economic development.

Ten years later, the National Conference on Education and Training, organized in 1981, allowed an honest and straightforward diagnostic to be undertaken of the whole of the education system. Devolution, decentralization and the opening up to the private sector became part of the fundamental recommendations of this National Conference, which brought together all the actors and partners participating in Education and Training.

The decree on the organization of the Ministry of National Education created two separate departments to look after technical education and vocational education respectively. The Conference ended in the creation also, by the passing of a law on 11 August, 1986, of the National Agency for Vocational Education (*Office national de la formation professionnelle*/ ONFP).

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[8] Vocational Guidance (La Guidance Vocationnelle) includes two elements: the detection of the potential qualities and assets of the students by giving them, on the one hand, a diversified range of experience, and, on the other hand, as a result of the latter, teaching them to master the basic technical gestures by giving them pre-vocational preparation.

The ONFP, having as an essential part of its mission the giving of assistance to the state in the orientation of the policy on vocational education, had also to contribute to the creation of new training centres and the financing of training activities. Its funding was ensured by a tax called the Fixed Contribution borne by the employer (*Contribution forfaitaire à la charge de l'employeur*/CFCE), which represented 3 per cent of the gross salary of Senegalese workers, and by subsidies given by the state. A definite innovation, the National Agency for Vocational Training (ONFP) became, as a partner, a determining factor in TVE.

Other creations, such as those of the National Centre for Vocational Qualifications (*Centre national de qualification professionnelle* (CNQP), of the Vocational and Technical Education Centre Senegal/Japan (*Centre professionnel et technique*/CFPT/SJ), and Regional Centres of Vocational Education (*Centres régionaux de formation professionnelle*/CRFP), are equally a result of the recommendations of the National Conference of 1981. This new institutional environment gave new life to the TVE sector, which nevertheless remained under the close control of the state.

The statement of the motives behind the Law of Orientation of 1991 aroused new criticisms, and the lack of articulation of the various parts of the education system was denounced. The text underlines thus "the incapacity of Secondary Intermediate Practical Courses to correct the effects of loss of students to the school". The new law restates the general principle according to which "the state guarantees the quality of education and training, as well as the certificates given". It contributes by injecting major innovations into the education system, that it structures in three cycles:

- a fundamental cycle, which includes pre-school education and comprehensive education (Elementary and Secondary Intermediate);
- secondary and vocational cycles, which includes general or technical secondary education, and vocational education;
- higher education.

For the first time, a distinction had been created between the general objectives of technical and vocational education: technical education is considered as opening the path towards higher education, while vocational education is a preparation for the exercise of an occupation in the world of work.

The renewal of interest in TVE led, after the last legislative elections of April 2001, to the handing over of responsibility for the sector to a fully autonomous ministerial department and no longer to a junior Minister, under the Minister of Education (presidential decree of 12 May 2001). This decision made concrete a promise made by the President during the National Conference on TVE.

However, this decision did not entirely settle the problem of the guidance of the system. The relative dispersal of the institutions in charge of TVE has led to duplication as a result of a multitude of administrative supervisory bodies, from which technical and vocational education has been able to 'benefit' over a period of time, according to the breaking up of ministerial departments and a change in successive fields of activity. Today, other than the newly created Ministry, the Ministries of Higher Education, the Ministries of Agriculture, Crafts and Handicrafts, Health or of Tourism also exercise administrative supervision of the establishments that provide training in the corresponding domains.

4.2 The supply of training

Technical and vocational education is based on precise programmes and systems of references, sometimes a little obsolete, which lead to the classical hierarchy of the various state diplomas: the Vocational Training Certificate (CAP), Technical School Certificate (BEP), Professional Certificate (BP), Technical Certificate (BT) and Technical Bac, and Advanced Vocational Training Certificate (BTS). Largely inspired by the French school model, it is characterized by an enhancement, particularly in examinations, of theoretical and general knowledge, associated with practical knowledge of vocational education.

The TVE sector has two main sections: one is technical, where Technical *Bacs* are prepared over a period of three years (G, T, S3, …), the vocation of which is mainly to prepare for further studies, the programmes providing "the students with the knowledge and necessary skills for access to the various streams in higher education"; the other is vocational, where the Vocational Training Certificate (CAP), and the Technical School Certificate (BEP), can be prepared, which lead more towards direct entry into the labour market, its programmes enabling "the acquisition of skills and qualifications for the exercise of a trade or a profession." The first can be assimilated to a 'long' stream, and the second to a 'short' stream, which are supervised by two separate departments of the Ministry *(DEST – Department of Technical Secondary Education – and DFP – Department of Vocational Education).*

This first distinction or dichotomy, centred on secondary education, is not however sufficient to describe the variety of vocational training courses dispensed in Senegal, which sometimes escape from the grid of school diplomas given by the state.

Thus, before this 'secondary education', particularly addressed to young girls coming from primary education, there are courses in vocational education centred on family and social education, on household-upkeep activities, cooking and sewing. These courses take place in the Centres for Feminine Technical Education (*Centres d'enseignement technique féminin*), where attestations of attendance are delivered and a Vocational Training Certificate (CAP) can be prepared.

Other types of training, of a crafts and handicraft type, are also given in the Regional Centres for Vocational Education (*Centres régionaux de formation professionnelle*/CRFP), where the best students can sit for the national examinations in order to obtain a Vocational Training Certificate (CAP).

Courses can also be taken in order to prepare for a profession in some Centres for Intermediate Practical Education, where the clientele is composed of young people, who will not carry on into secondary education. This form of education has nevertheless fallen into disuse and only concerns a small number of young people.

It must be mentioned that a significant number of young people leave primary education and go into a system of apprenticeship which is called 'traditional', where the training is given on the spot by a master craftsman. This form of training, without precise pedagogical contents, often takes place in workshops. It is conceived for the mass of young people with little education or who have not been to school; it lacks organization and is unknown at a statistical level.

Given the low transition rate into secondary education, to which only 20 per cent of the students who have received primary education accede, the question can be raised about which paths are open to the mass – 80 per cent of the younger generations – for them to obtain qualifications so that they can find employment on the labour market. In particular, how can the exact status, place and role assigned to Intermediate Education be determined, of which the practical component, although marginal, still today seems to constitute a kind of pre-vocational orientation, coming within the concept of 'vocational guidance' mentioned above?

Below the level of the *Bac* and alongside classical university education, training courses now tend to develop that allow students to prepare for the Advanced Vocational Training Certificate (BTS) (*Bac* + 2) or for equivalent diplomas. Even though it is part of higher education, this form of training comes under vocational education and is claimed as such by the Ministry concerned.

TVE in Senegal is fragmented, with little lisibility, the training courses of which extend, in varied forms, from the post-primary to the higher-education level. It fulfils highly diversified functions and is addressed to profoundly distinct target groups.

The students taking these secondary or higher-education courses are distributed throughout a rather large variety of establishments. They are to be found in technical *lycées*, as well as in training centres or institutes, which, in the various industrial and tertiary specialities 'naturally' lead to state diplomas, but can also be specific.

The Regional Centres for Vocational Training (*Centres régionaux de formation professionnelle*/CRFP) constitute an autonomous project (financed by the European Union) run from within the Ministry. This particular status tends to isolate the CRFP from the rest of the training system conceived as a group of articulated mechanisms and programmes, coherent in its continuity.

There is uncertainty also with regard to the technical courses at the level of *Bac* + 2. Thus, the Advanced Vocational Training Certificate (BTS) is considered as part of vocational training when dispensed in *lycées*, but the equivalent programmes dispensed by the Polytechnic School of Higher Education (*École supérieure polytechnique*/ESP) come under higher education. This vagueness about the management of *Bac* + 2 technical training courses preoccupies the Department of Vocational Education (*Direction de la Formation professionnelle*/DFP), which fears that these courses will be entirely given over to the Ministry in charge of higher education.

'The Ten-Year Programme of Education and Training' (*Programme décennal de l'éducation et de la formation*) (PDEF, September 2000), conceived within the framework of the special initiative of the United Nations for Africa, mainly supports this critical analysis. A great number of weak points have been noted and it has been particularly emphasized (that) "in spite of this diversity of structures, what can be seen of TVE does not have a very positive effect. The sub-sector, which exists since independence, has not been developed in a regular and harmonious manner, either in its plan of access or in that of quality, in spite of both attempts to improve it and the effort put into it by the state".

4.3 The expenditures and the costs

The PDEF emphasizes the weakness of funding of the sector. It particularly notes that even though the budget of national education regularly progressed from 1986 to 1997, from 47 billion CFA francs to 95 billion, the part given over to TVE continues to decrease. As a whole, of the current public expenditure (all sources combined) dispensed during the course of the year 1997, the part given over to technical and vocational education was not more than 4.3 per cent, against 9.6 per cent in 1992. It is to be noted, relating to technical education, that ODA represented, in 1998, 38 per cent of the total of public expenditure on education. According to the data furnished by the Ministry of National Education (*Ministère de l'Éducation nationale*/MEN), the ODA was non-existent with regard to vocational education.

The question of funding of TVE is always linked to its cost, which is, due to its nature, higher than that of general education, in particular for industrial training. According to the PDEF, the unit cost in technical secondary education was 232,318 CFA francs in 1996, compared to 196,405 CFA francs in secondary general. This usual difference appears, however, relatively feeble compared to that of higher education. In fact, a student in technical secondary costs Senegal six times more than a pupil in primary, but this ratio attains 33 for one student in higher education.

The question of the cost-effectiveness ratio of TVE must thus be approached by taking these values into account. The 'relative' additional cost of vocational secondary education can be explained by lower student/teacher ratios or the smaller-sized classes; the facilities, moreover, rarely being fully occupied. The low utilization rate of facilities makes it still more strange when one considers the intensity of present selection procedures, both on entering as well as upon leaving: poor efficiency can be added to the relatively costly character of technical education.

The National Agency for Vocational Training (ONFP), operational since 1988, has the particular mission of financing vocational education activities and of contributing financially to the creation of new centres. In order to do this, the ONFP is financed by a fraction (5 per cent) of the Fixed Contribution borne by the Employer (*Contribution forfaitaire à la charge de l'employeur*/CFCE). One-third of these resources is used for the operation of the Agency; two-thirds are given over to the financing of training. In the year 2000, the Agency thus financed the training of 4,000 persons. The training is undertaken by various establishments (56 in 1999).

The functioning of this mechanism brings to light at least two problems. First of all, that of the insufficient funds available with regard to needs. It is evidently regrettable that 95 per cent of the Fixed Contribution borne by the Employer (CFCE), which represents an annual mass of 4 billion CFA francs, cannot actually be used to improve and to develop the vocational education tool, initial as well as continuing education. An anomaly which tends however to explain or justify the little interest shown by the enterprises in training.

Then, the choice of training programmes and of providers lacks transparency and legibility. The enterprises and the craftsmen are not involved in decision-making. In addition, no invitation-to-tender procedure has been used in the implementation of training, a method which would put all establishments on an equal basis, including private providers.

The project of a creation of a Fund, mentioned in the PDEF, should permit, at one and the same time, the constitution of a minimal pool of resources to create a real partnership and the implementation of allocation mechanisms that are more transparent and more efficient. The amount of this 'experimental' Fund would at first be US $1 million for a period of three years.

With regard to the question of financing, besides the state and the enterprises, other sources should also be examined, particularly the possibility of contributions being made by households and local governments. These should see their role increase within the framework of decentralization. They are also often approached by the establishments with regard to social welfare, as well as the giving of fellowships to students. The data available on the distribution of education expenditures, per agent, show the modest amount of financing given by local governments to the TVE sector, the weight of the families (10.5 per cent of expenditures, apart from foreign aid) and the significance of the ODA, that provides funds at about the same level as those allocated by the Senegalese State (see *Table 17*).

Table 17. Source of financing and intrasectoral distribution of expenditures, 1996 (CFA millions of francs)

	Government	Local gvt*	Households	ODA	Total	% of total
Administration	13,843				13,843	11.1
Pre-school	12				12	
Primary	31,207	767	16,121	3,037	51,132	41.2
Public	30,407	767	6,925	3,037	41,136	
Private	800		9,196		9,996	
Secondary intermediate	8,177	159	6,427		14,764	11.9
Public	8,177	159	1,096		9,432	
Private			5,331		5,331	
Secondary general	9,239	192	1,456	2,308	13,195	10.6
Public	9,239	192	453	2,308	12,192	
Private			1,003		1,003	
Technical	1,993	8	235	1,762	3,920	3.2
Public		8	98	1,762	3,861	
Private			137		137	
Vocational – Public	1,961			1,959	3,920	3.2
Higher – Public	20,667		275	2,369	23,311	18.8
Total Public	86,301	1,125	8,846	11,436	107,709	86.7
Total Private	800		15,668		16,468	13.3
Total	**87,101**	**1,125**	**25,514**	**11,436**	**124,176**	**100.0**
Share (%)	70.1%	0.9%	19.7%	9.2%	100%	

Source: The World Bank. 2000. Project appraisal document. Republic of Senegal. PDEF, Report No.19610-SE. (*** government**)

4.4 The labour market

Basically, all recent evolutions in the labour market in Senegal are little different from those that have been registered in other French-speaking Western African countries (Hugon and Pagès, 1998). As in other countries of the region, public employment has regressed and the capacity of absorption of private companies remains modest (Fall, 1997). There again, it is up to the informal sector to ensure the balance between supply and demand of work by absorbing the surplus of the labour force, including graduates. In spite of everything, the civil service continues to exercise a certain attraction, not so much for the direct revenue that it procures, but because of the status, social security coverage and indirect advantages, monetary and non-monetary, which can be obtained.

In Senegal, the recent data on the relationship between employment/training and the insertion of young people seem more rare than in other countries studied. This deficit could be linked to the absence of an Observatory. In spite of their limitations, the mechanisms set up in the Côte d'Ivoire, Madagascar and in Mali are starting to provide answers to questions about the functioning of the labour market and TVE graduates' employment. In Senegal, there is still a great deficiency in this area.

Chapter II

The French model and its implementation in Africa

1. Legacy of the past

It is important to know the details of the history of the transposition into the French-speaking African countries of the French TVE model, in order to understand the problems posed by its adaptation to the local social and economic realities. These problems are numerous and concern:

- TVE with regard to basic, secondary and higher education;
- the socio-professional insertion of the young;
- the contribution to economic development by the raising of the level of qualifications and skills in various types of enterprises, which include crafts and handicrafts.

Apart from envisaging a radical change of system - hardly imaginable in the present respective contexts –, it is on the basis of this model that overall adjustments, an opening up and the undertaking of reforms must be envisaged. This process is more or less under way in a certain number of countries and is widely supported at national and international meetings on TVE (see, for example, the conclusions of the CONFEMEN in Bamako in 1998).

In this context, it would appear important, first of all, to describe how the French model is constituted and under what conditions it has been adopted, more often, only partially, in French-speaking Africa. The most important changes that have taken place in the system in France and their consideration in the French co-operation policy will be analyzed below.

1.1 Technical and vocational education in France in the 1960s

1.1.1 Technical education

The 1960s correspond to independence for African countries and to the period of the post-Second World War boom period in France, characterized by full employment and economic growth. Important reforms were adopted concerning technical education. Up to then it had depended on a specific administration, suppressed in 1961, which determined the modalities of operation, differing from those applied to general education. Skilled workers were trained in *apprenticeship centres (centres d'apprentissage/CA)* in a three-year sequence; middle-level operators in *colleges of technology (collèges techniques/CT),* in a four-year sequence beginning after completion of the second year of junior secondary education; and technicians in *national vocational schools (écoles nationales professionnelles/ENP),* in a five-year sequence beginning after the completion of the third year of junior secondary education.

In all cases, a high proportion (30 to 50 per cent) of the total training time was devoted to practical (workshop) training.

	CA	**CT**	**ENP**
18 years			x
17 years		x	x
16 years	x	x	x
15 years	x	x	x
14 years	x	x	x
Recruitment as from:	primary school certificate	completion of 7th grade	completion of 8th grade

The close match-up between these training centres and the workplace was fostered through an innovative measure: technical disciplines were taught by experienced workers recruited through competitive examinations, who formed a good interface between schools and businesses (this teaching force no longer exists).

In 1961, the national vocational schools were suppressed and replaced by technical high schools (*Lycées techniques*), with statutes that were identical to those relating to general education, recruiting in the fifth year of secondary school, where students prepared for technical *Bac* (*Baccalauréats techniques*), with a theoretical form of instruction that was reinforced to the detriment of vocational education. The preparation of the Vocational Training Certificate (CAP) was then maintained in the technical education colleges (*Collège d'Enseignement technique*/CET); created in 1959, replacing the training centres, and reflecting a beginning of integration into secondary general education.

This reform aimed at improving the status of technical education in relation to general education, but was based on the specific criteria of the latter: vocational training was no longer the principal objective, the new high-school diploma (*Baccalauréat*) guaranteed access to higher education, mainly to short courses. In a period of full employment, this reform did not appear to be prejudicial to the insertion of those trained, as companies took over the responsibility for their vocational training. However, things changed when unemployment appeared 15 years later. It can be said that the integration of technical education into general education had made it into a second-class system, recruiting in the fifth year of secondary school as a result of failure, and thus depriving the training centres of the specific administrative methods that had allowed them to maintain a close relationship both with the world of work and with companies, in order to adapt training to the needs of the labour market.

Only one innovation had been introduced towards increased vocationalization: Technical *Bac* graduates could, as from the 1960s, prepare, in the technical high schools (*Lycées techniques*), over a period of two years, an Advanced Vocational Training Certificate (*Brevet de technicien supérieur*/BTS), thus completing their vocational knowledge. This diploma became essential on the labour market, parallel to the university diploma of technology (*Diplôme universitaire de technologie*/DUT) that was subsequently created in higher education – as from the 1970s – open mainly, but not exclusively, to scientific *Bac* graduates.

Technical *Bacs,* as long as they were supplemented by a BTS, gave access to vocational training as an 'advanced-level technician'. However, technical *Bac* curricula were too theoretical to train technicians, which would normally have been the case. It was not until the 1980s, after the appearance of unemployment, that the 'Vocational *Bacs'* at 'technician' level became available. These were prepared in the vocational high schools, prolonging the Vocational Training Certificate (CAP) and the Technical School Certificate (*Brevet d'études professionnelles*/BEP), much appreciated on the labour market. It was the first creation of a diploma which had been imposed by the labour market and entirely negotiated with the professional branches. This step, which at that time was quite innovative, marked the beginning of systematic and profound consultations with professional organizations, which have now become the rule with regard to any new form of training.

It should be emphasized that due to the fact that the Advanced Vocational Training Certificate (BTS) only recently appeared in Africa, those possessing a Technical *Bac* had great difficulties inserting themselves into the labour market, since few opportunities were available for the continuation of vocational studies, especially as those with Science *Bacs* were given preferential access to advanced technological training courses. Only 'Science and Technical' *Bacs* prepared in technical high schools, a selective route towards the preparation of numerous engineering schools, enjoy a long-established and good reputation.

1.1.2 Vocational training for adults

It is mostly dispensed by the National Association for the Vocational Training of Adults (*l'Association nationale pour la Formation professionnelle des adultes*/AFPA) under the supervision of the Ministry of Labour. Born of the training needs related to the reconstruction of the country in 1945, it has establishments all over France. Its existence is totally independent of technical education and it represents an illustration of French institutional architecture, widely adopted in French-speaking Africa: the coexistence of a Ministry of National Education, in charge of technical education, and of a Ministry of Labour and Employment, in charge of vocational training. These administrative frontiers will not facilitate the emergence of policies regarding a joint approach to the relationship between training and employment in a country otherwise strongly impregnated on a cultural level by the separation of the school from the enterprise.

1.2 A badly undertaken transfer in Africa

The model transposed to Africa was easily imposed, due to an army of technical assistants, mainly teachers (more than 2,000 still in 1980 in French-speaking Africa for technical education alone), working within the framework of the so-called 'co-operation by substitution'. This means that they taught exactly as if they had been in France, in place of the, as yet non-existent, African teachers, and whose training was hardly considered.

It should be stressed that the French system adopted at the time of independence in the respective African states had just been profoundly modified in France, with a reinforced integration into general education and within a context of economic growth and full employment. Had the local African social and economic realities been better taken into account, these countries could have been given more autonomous TVE systems, as was the case of the French model before 1961, and would have responded with greater flexibility to the needs of the yet ill-defined national economies.

The new model having been adopted and strongly consolidated by the French aid has not changed much over time. In addition, no account was taken, up to these past few years, of the changes taking place in France, whereby training was adapted to social and economic needs in a period of crisis. The influence exerted by models introduced by other bilateral donors have had, until recently, less impact.

Thus, African Ministries of education have for a long time managed TVE and have often kept this position up to the present day, without entering into a particular relationship with the economic environment and the world of work.

Another reason for this immobility was due to the institutional characteristics of the French co-operation itself: the numerous technical assistants were teachers detached from their teaching position to serve the Ministry of Co-operation and, by this means, were cut off from the changes made in their original institution, which hardly made any contribution to the definition of the policy of co-operation, particularly with regard to the field of TVE. This policy was therefore essentially agreed upon by the African Ministries of education and the French Ministry of Co-operation, little aware of the TVE sector. Due to this, the original strategic errors, denounced by numerous African personalities and foreign experts, were never corrected.

1.3 Institutional problems related to the application of the model

The stabilized coexistence of various Ministries in France sharing, in various degrees, the supervision of TVE, has often been viewed as a source of competition in Africa and has very certainly undermined the global coherence of the system.

This is the case in the countries in which the Ministry of Labour and Employment is supposed to administer vocational training, but where most training institutions belong to the Ministry of Education. These same countries will see these two institutions oppose each other when the Ministry of Education would like to offer opportunities for continuing education. Other countries will see the supervision of their training centres alter periodically according to ministerial changes.

In most of the countries, the rift between secondary education and higher education would be prejudicial to the establishment of training pathways, as TVE graduates do not meet the admission criteria to continue studying.

Apprenticeship is not part of the TVE system and can depend on a Ministry without training facilities.

1.4 Problems of the training courses and their vocational education content

The application of French arrangements, when they have only been partial, has also led to problems. It is so in the case of Technical *Bacs*: in France, their creation had been followed up by that of the BTSs, the recruitment for which was almost entirely reserved for those with Technical *Bacs*, so that a large majority of such graduates were able to take up a form of training which gave them, within a period of two years, professional qualifications. These were particularly accessible as they took place in the high schools (*lycées)* themselves and not at university. This solution rapidly gave good results, as they allowed and still allow for access to employment by those having obtained a diploma. The BTSs, in addition, have easily resisted competition coming from those with University of Technology Diplomas (DUT), delivered by the University Institutes of Technology (*Instituts universitaires de technologie*/IUT), also obtained within a period of two years. The logic behind the latter was to offer a means of exit towards employment to the numerous students in the first scientific cycle in order to relieve congestion in the second cycle. In fact, the coexistence of these two diplomas causes no particular problem on the labour market: the more technical training of the BTS, and the more scientific aspect of the University of Technology Diploma (DUT), provide the employers with a wider range of choice and, as a whole, preference is not given to one over another, and job offers often mention: 'BTS or DUT'.

In Africa, the setting up of Technical *Bacs* has rarely been followed up by that of a BTS and the students having obtained the *Bac* had no other future before them except that of a hypothetical entry into higher education, where they often found themselves to be in great difficulty vis-à-vis students who had obtained the Science *Bac*. In addition, in order to reduce the pressure on higher education, many countries replaced the denomination of *Bac* by that of Technical Certificate or Diploma, without greatly changing the contents (see below), thus limiting access to higher education, but thereby putting those with such a diploma in great difficulty with regard to finding employment.

The organization of a progression of training courses linking the Vocational Training Certificate (CAP), the Technical Certificate (BT) and the Advanced Vocational Training Certificate (*Brevet de technicien supérieur*/BTS), providing a greater coherence in vocational training, and the diminution of Technical *Bacs* (some envisage their suppression notably in Senegal) would possibly contribute to an improved professional insertion into the labour market. It will be interesting to make comparisons regarding the latter between France and French-speaking Africa.

1.5 Absence of apprenticeship in TVE

The fact of having neglected African economic realities has had a particularly prejudicial effect at a social level: it has led to the absence of any education/training policy concerning the activity of micro-enterprises in the craft industry (called the informal sector). Its endogenous mode of training of apprentices was for a long time ignored or scorned, even though these craft industries contribute in a large measure to national production, offering extensive employment opportunities as well as ensuring the major part of the maintenance of materials. Their needs in complementary theoretical knowledge, closely associated to the gestures of the profession, are considerable and TVE should, sooner or later, address them. The lack of interest shown to date can be put down to the adoption of the initial French model, which undervalued know-how (and thus apprenticeship). It is to be noted that other donors, Swiss or German, for example, which had their own models, had a greater appreciation of such professions (the Swiss or Germans, for example, showed their interest by dealing directly with the artisans and their organizations).

2. Adapting the model: main lines of reform

2.1 Reform strategies

The panorama of TVE rapidly drawn up might give the impression that it is at a standstill. This would mean not taking into account the increasing pressure of young people on the labour market and the urgency of a mobilization of resources in order to get out of a situation of economic crisis that contributes to a revaluation of the presently underestimated value of vocational training in educational policies: should priority only be given to basic education? Vocational training appears to many in Africa like a fundamental asset, in public opinion as well as to those in charge of public and private sectors, including in trade associations. The increasing attention recently paid to TVE has also shown up the inadequacies of the system, as well as the necessity of reform.

However, even though there has been a general acknowledgement of the situation, decision-makers have two types of contradictory attitudes.

One group emphasizes the sector's lack of resources and sees in this the principal problem. Such an approach is illustrated by comments recently made by the Minister of Education of the Côte d'Ivoire, when he spoke about the need to develop what was already in existence, by multiplying the technical *lycées* within the framework of its Ministry. This policy is sometimes supported by certain donors who finance new constructions where training, often ossified, is carried out. The inadequacies of the training courses on offer are often attributed to a lack of equipment.

Another approach recommends profound reforms and a redefinition of the objectives and assignments of TVE by placing emphasis on the role of the social and business partners in the organization and the monitoring of training and on a greater flexibility of the system. At the recent National Conference on TVE in Senegal, mention was made of the necessity of a 'rupture' in order to reform the system.

These two orientations meet and coexist in each country, but the added and increasing weight of the employers and business organizations and the urgency of finding the right solutions for an improved socio-professional insertion of young people into the labour market, tend to tip the balance in favour of the second.

Thus, it would seem that now is the right time to undertake reforms. These are officially recommended: the CONFEMEN meeting on Vocational and Technical Education, held in Bamako in 1998, recommended an overhauling of the systems. However, the reforms are still not under way, due to institutional and political inertia.

However, are global reforms necessary in order to bring about change? The example of the French model, even in France, is interesting to study. Brutally confronted in the 1980s with a deteriorated economic situation, it was also suddenly inadequate to meet the realities of employment and the new skills required. Just like the African systems, it suffered from a lack of contact with the companies and from an internal rigidity in its functioning, making it seem impossible that it might be able to adapt to the new situation.

Finally, changes were made by small degrees (this will be taken up again below). Yet, at the expense of a long evolutionary process of an originally rigid system, France has succeeded in making its training courses more vocational, by undertaking dialogue with its economic and social environment in order to get to the root of the problem, and by acknowledging and practising apprenticeship on a large scale.

It is also in the detail of partial initiatives and in their degree of acknowledgement by the system that global evolutions can, without doubt, be appreciated.

2.2 *Policy intentions with limited effects*

The political declarations concerning the place and the role of TVE systems in social and economic development are unanimous for once: they criticize the existing situation and ask that TVE be reformed in order for it to get closer to the needs of enterprises and provide for the insertion of young people into the labour market. Let us cite the President of Senegal, Abdoulaye Wade: "it is necessary to rapidly resolve the distortions which exist between training and employment… to produce young people with diplomas who become unemployed in a country that has much to build is beyond all common sense… Our society as a whole is concerned by the challenge presented by education and training, which are the priorities of my mandate."

A new element has started to appear in these statements of principle; it has to do with the acknowledgement of the micro-enterprise sector for crafts and handicrafts as a key element in the labour market. The idea continues to gather strength that the supply of public training courses should also be addressed in this direction, complementary to the apprenticeship that it practises. However, it has to be recognized that only Togo has so far really taken this path.

In the *Côte d'Ivoire*, as a result of consultations with donors, a National Plan of Development of the Education/Training Sector (*Plan national de développement du secteur Éducation/Formation*/PNDEF) was adopted for the period 1998-2010. This plan recommends better relationships between the important TVE institutions in the country (FDFP, AGEFP, AGEPE[9]), the activities of which are insufficiently co-ordinated. It also recommends adapting the statutes of the establishments in order for them to be able to respond more efficiently to the various requests for training, as well as to generate their own additional resources.

In this institutional context, the project called: Support to the Introduction of Dual Training (*Appui à l'introduction des formations par alternance*/AIFA), supported by GTZ, a long-term project as it is to last for a period of 13 years, aims directly at the establishments and their practices. Started up in 1998, it concerns a limited number of trades in various branches of business and constitutes, without doubt, an innovative main line of reform. More details will be given below about its objectives, methods and means.

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[9] Fund for the Development of Vocational Education (*Fonds de développement de la formation professionnelle*); National Agency for Vocational Education (*Agence nationale de la formation professionnelle*); Agency for the Study and Promotion of Employment (*Agence d'étude et de promotion de l'emploi*).

In *Senegal*, the Ten-Year Programme of Education and Training (*Programme décennal de l'éducation et de la formation*/PDEF) stigmatizes the inadequacies of the national system of TVE: "in spite of the diversity of the structures, TVE appears to be far from brilliant. The sub-sector, which exists since independence, has not been developed on a regular and harmonious basis, neither from the point of view of access nor of quality…". However, the space given to this sector in the PDEF is relatively modest in comparison with other education sectors.

The PDEF rightly identifies the limitations of the present system and suggests change without always making clear the methods or means of implementation of the necessary reforms. The principal inadequacies concern the following:

- the instability of the governing body;
- the absence of adequate offerings in the shorter courses of higher education for Technical *Bacs*;
- the lack of supply in training at Vocational Training Certificate (CAP) and the Technical School Certificate (BEP) levels;
- the unequal distribution of training courses throughout the territory;
- the lack of financial support for apprenticeship, although 67 per cent of those leaving basic education have no access to any qualification;
- the lack of dialogue between the establishments and the companies – one of the main reasons for the difficulties of insertion of those trained.

The country recently held a National Conference on Vocational Training and it will be interesting to see the manner in which the recently created Ministry of TVE will undertake the reform that has been announced.

In *Mali*, the following objectives were aimed at within the Ten-Year Programme of Education (*Programme décennal de l'éducation*/PRODEC):

- in the year 2008, general secondary education should give access to 65 per cent of fundamental education graduates (this represents a total enrolment of over 100,000 students);
- a quarter of this number leaving fundamental education will be guided towards vocational education.

The Law of Orientation, passed at the end of 1999, states that by the year 2008, more than 50 per cent of those out of school and non-schooled from the ages of 9 to 15 should be able to have access to a minimum level of education. The rate of access to a form of vocational education adapted to the needs of the economy should be above 56 per cent.

On a short and a medium-term basis, the opening of three university institutes is foreseen (of which one will be for Civil Engineering and another for Food-Processing Engineering).

The programme distinguishes 'vocational and technical education' from 'secondary general and technical education', but gives no details concerning the breakdown of the resources available between the two (construction of establishments, recruitment of new teachers).

It can be noted that this programme, which is otherwise very complete, does not make reference to concrete data on the labour market as far as the future of TVE is concerned, but it does however recommend, in an almost exhaustive fashion:

- a greater autonomy for establishments;
- a greater vocational education content in training;
- more attention to be paid to the insertion of those trained;
- a reorientation of training towards streams which lead to employment;
- a readjustment of the cycles to the benefit of the Vocational Training Certificate (*Certificat d'aptitude professionnelle*/CAP);
- a focus on establishments located far from the capital city;
- the creation of new structures for vocational education;
- the broadening of the mandate of vocational education schools to include continuing education and provision of a service;
- a greater supply of training for girls;
- the creation of synergy between School and Enterprise.

The PRODEC will be discussed again below, concerning the distribution of responsibilities between donors.

The implementation in *Madagascar,* from 1993 to 1999 of the Project for the Reinforcement of Technical and Vocational Education (*Projet de renforcement de la formation technique et professionnelle*/ PREFTEC), based on credit arrangements with the World Bank, has led to the definition of the fundamental objectives of TVE around two main themes:

- the system must be at the service of the economy, which implies a profound restructuring of the public establishments of technical education, based on an increased vocational education content of the training dispensed;
- the private sector must be implicated in a consistent manner in the orientation and the financing of TVE policy.

The extent of the structural transformations decided upon within the framework of the Project is such that the term ‘after-PREFTEC’ is used to describe the present configuration of TVE.

The principle on which is based the new system is that of the mobilization of private financial resources, particularly by the following means:

- the taking over by the private sector of the National System of Financing of Vocational and Technical Education (*Système national de financement de la formation technique et professionnelle* (SNFFTP), taking into account the capacity to contribute both of the beneficiaries and of the enterprises;
- the financial participation of enterprises within the framework of the local Regional Inter-Professional Association of Employers (*Associations régionales interprofessionnelles d'employeurs*/ARIF), on the basis of a contribution according to the wage bill (see below);
- tax incentives to accompany these contributions;
- encouragement given to the enterprises to contribute human and material support, on the assumption that the private sector will be effectively implied from the design to the implementation of the training courses;
- the financial contribution of the trainees, even in the public training centres.

Alongside this major role foreseen for the private sector, the state must set up the legal framework particularly guaranteeing the tax deductions and ensuring the training of the TVE trainers, both from the private and public sectors.

A period of 10 years is foreseen so that the Intervention Fund for Vocational Education (*Fonds d'intervention de la formation professionnelle*/FIFP), implemented for the financing of vocational education leading to qualifications, can become operational with a significant participation of the beneficiaries. The participation of the state and donors shall focus on providing advisory services and supporting the financial autonomy to the establishments.

The functioning of the system designed by the PREFTEC is described in the section on support mechanisms at a national level.

Reality is not always abreast of the objectives; it can be said that this project has brought about many changes in the way people see TVE and contributes to questioning the old habits and customs of a system that had been for a long time under the tight, centralized control of the state.

In summary, it can be noted that in the various countries a similar desire to reform and to reposition TVE within the education systems has been expressed. One is obliged to recognize that this political commitment is translated with much more nuance in the field, according to the specific adjustments being made in each country, within the framework of more or less comprehensive Ten-Year Programmes.

The responsibility for the implementation of the TVE reform programmes has been given to the existing supervisory bodies in institutional structures, the piloting capacity of which is often limited. Thus, respecting the promises made will, for a large part, depend on the level attained in the reinforcement of institutional capacities.

Chapter III

Challenges and policy responses

1. Reconstructing the TVE sector

1.1 The key policy choices

1.1.1 Skill-needs identification and labour market analysis

The data on the labour market necessary for the adaptation of training to needs are mainly of two types:

- The first type of information includes all data which allow to identify labour market segments that provide or are going to provide employment. They help by identifying the occupations which correspond to these trades and the skills profile that should accompany them. This information can give a proxy measure of the number of people to be trained and, possibly, on their regional distribution. It is only indicative and sometimes subject to unforeseen evolutions of the market. It concerns initial training as much as continuing education.
- A second type of data concerns those which allow for the identification of the levels of qualification necessary for the various activities covered by the occupations identified, and which will serve to define the referential activities or qualifications, on the basis of which a system of reference can be established or in relation to which the necessary training can be designed.

These two types of data do not correspond to the same type of surveys nor to the same skills of analysis.

Recently, the countries of the zone entrusted the collection and the analysis of data to Observatories. In addition to this macro-level approach, initiatives are taken at the micro-level to analyze local labour markets.

(a) The national observatories of employment and training

Relatively recently created, they are often backed by the ILO and the World Bank and have rather similar assignments; they collect pertinent and reliable information about employment, the labour market and training, and hand it over, after having worked on its analysis and synthesis, to the various actors concerned. They have to provide real tools to help in decision-making at an operational level by enhancing the data thus obtained and studied so that the actors concerned can make easy use of them.

These observatories are positioned differently in the various administrations according to the country concerned, but the natural tendency is to place them in proximity to the Ministry of Employment. However, in spite of this institutional position, it seems that the creation of observatories as a component of the restructuring of the vocational education system initially led them to concentrate more on training.

The observatories work in a context which is not particularly favourable to them, for many reasons: the relationship between the world of work and that of training is still little developed; their resources, particularly human, are often insufficient. The task of interfacing which has been given to them, complex in nature, is thus difficult to assume. Their initial objectives should not be too ambitious in the short term, and their impact can only be appreciated on a long-term basis.

In *Mali*,

The Observatory of Employment and Training (*Observatoire de l'emploi et de la formation*/OEF) is one of the three component parts of the Project for the Consolidation of Vocational Education (*Projet de Consolidation de la Formation Professionnelle*/PCFP), based on a credit agreement between the Government of Mali and the IDA, a project which was operational as from the beginning of 1997. The Observatory of Employment and Training (OEF) is attached to the National Workforce and Employment Agency (*Office national de la main-d'œuvre et de l'emploi*/ONMOE), that recently became the National Employment Agency (*Agence nationale pour l'emploi*/ANPE), a personalized service of the Ministry of Employment and Vocational Education (*Ministère de l'Emploi et de la Formation professionnelle*). Apart from the training of its staff, which is still going on, the Observatory of Employment and Training (OEF) has initiated a few interesting studies, such as a tracer study of TVE graduates. However, as the classification of occupations has yet to be developed in Mali, and no database on the enterprises is available, information is difficult to collect and to use. Basic work has therefore to be undertaken before this observatory can usefully serve the restructuring and the reorientation of training.

In the *Côte d'Ivoire,*

The Observatory of Employment, Trades and Training (Observatoire de l'Emploi, des Métiers et de la Formation/OEMF), attached to the Agency for the Study and Promotion of Employment (AGEPE), started work four years ago on a list of trades, but to date only the sector relating to the secretariat has been completed. Two studies on employment have been published; they concern, on the one hand, the inventory of statistical sources of information on employment, trades and training and, on the other hand, the identification of the observatory's partners' and clients' needs with regard to information.

After these two preliminary studies on employment, numerous studies have been undertaken, or are being undertaken, aiming more directly at data useful for TVE. It is not yet possible to evaluate the impact of this work on training policy.

The Observatory of Employment, Trades and Training (OEMF) encounters a certain number of difficulties in carrying out its assignments. It does not possess the operational and administrative flexibility necessary for its enquiries, in order to enable it to hire temporary personnel, implement incentive measures according to productivity by an appropriate remuneration system, and guarantee mobility in the field by paying travel expenses. Moreover, the administrative nature of the observatory is not always compatible with the culture and open attitude necessary to the carrying out of its task of investigation and interface.

In *Madagascar,*

The National Observatory of Employment and Training (*Observatoire national de l'emploi et de la formation*/ONEF), which has been operating since 1996, is administered by an administrative council associating the state, the employers and the workers. It has a regional organization with local correspondents, chosen amongst the representatives of the local economic sector, members of the Regional Inter-Professional Association of Employers (ARIFs) (see below), under the supervision of regional groups of technical and vocational education centres (*Groupements régionaux des centres de formation technique et professionnelle*/GIREFTP). Without being biased about the difficulties of implementation of regional observatories, especially at the level of human resources, it is evident that the regional scope allows a greater keenness of observation and more direct investigations of local labour markets.

The observatory is in charge of providing information on the labour market, on skill needs and of conducting tracer surveys. It has undertaken numerous studies. It also plays a role in the pedagogical orientation and content of Malagasy TVE that will be analyzed below.

In *Senegal,*

There is no observatory as such, but the National Agency of Vocational Training (ONFP) is supposed to analyze skill needs. This office is, above all, known in Senegal for the funding that it can give to training activities. However, it is also responsible for "studying the problems raised by the appropriateness of training for employment as well as the finality and the content of training programmes": without being biased against the quality of the studies it has been able to carry out in this respect, they do not seem to have become standard works on the subject or, at least, they have not succeeded in giving TVE the tools of analysis necessary for its advancement.

In summary, three important remarks concerning the training needs emanate from all the enquiries and analyses of the observatories: they concern employment and the supply of training, the additional vocational education content of training courses, and continuing education.

(i) The employment sectors and the supply of training

The sector (called 'informal') of the crafts and handicraft enterprises, employing apprentices and providing employment in most of the countries, is not taken into account in numerous TVE training programmes.

The sector (called 'modern') of the small and medium-sized enterprises, employing salaried staff, generally creates little employment and yet most training is directed towards them.

One of the functions of the observatories should then be to give information about the orientations which should be taken into account both in the changing of the contents of training and the flow in the numbers of students, in order to restore the balance in supply in relation to these two large sectors of activity.

(ii) The additional vocational education content of training (increased vocationalization)

The lack of vocational content is unanimously denounced, but the two reasons often given for this lead us back to other causes as important:

- The programmes are not properly adapted': it is often obvious, but to change them will not ensure a significant improvement in the employment of graduates, which also depends upon the quality and the permanence of relationships established with the world of work and on the capacity of teachers to develop these relationships;
- The equipment is obsolete or in bad condition': this is often correct. The response to this problem must be imperatively preceded by a study of the relevance of the training given. Only then can this question be raised and the needs in training equipment be redefined.

(iii) The importance of continuing education

Indications concerning the productivity of enterprises and the discussions undertaken with the employers bring to light an important need for the improvement of personnel in activity.

In Madagascar, a survey carried out in 708 enterprises shows that with regard to growth, the needs related to the improvement, retraining and adaptation of the personnel to this end represent more than 50 per cent of the constraints, coming before the financing of new equipment, which only represents 40 per cent (Zoana, 2001).

Often, when job-related offerings met a high level of demand, all programmes proposed were rapidly taken up.

Thus, in Gabon, a continuing training programme, administered in an original manner, had an immediate success. As no official structure seemed to be able to ensure its efficient financial supervision, this was handed over to an association, recognized by the Ministry, being totally autonomous financially, and of which the president was the director of TVE. The public-sector teachers were employed during holiday periods. It must be noted that in this country the enterprises do not pay apprenticeship tax, which, in the case in point, was a factor which favoured the decision to approach the association.

It can be noted however that in Burkina Faso, where the enterprises are highly taxed for training purposes, they agree to give additional financial support to forms of training that they require and approach the TVE institutions to this end.

In the crafts and handicraft micro-enterprise sector, advanced courses for heads of companies are in large demand. In Mali, for instance, continuing education, proposed through programmes financed by the Support Fund for Vocational Education and Apprenticeship (FAFPA), complements the training programmes aimed at apprentices.

Generally, the observatories have not yet contributed in an obvious manner to improving the steering of TVE. In the field, the training centres to a large extent are not aware of their activities.

(b) the study of the labour market by the establishments and the 'key informants'

It is not necessary to wait for the observatories to become fully operational in order to better understand the economic environment. This is the attitude of a certain number of TVE establishments that have started to set up a computerized service for the collection of data on the enterprises in their region, so that they can trace the capacity of insertion related to those trained, the needs in continuing education, and the possibility of training within companies.

An example of establishments having long since been given the assignment and the facilities for the observation of local employment is that of the vocational *lycées* of the Côte d'Ivoire (see below).

In *Senegal,* the Professional Insertion Unit of the Department of Electrical Engineering of the Polytechnic School of Higher Education (*École supérieure polytechnique)* in Dakar produces a dynamic monograph on the employment of young people trained in the trades of industrial electricity. Still in Dakar, the Technical *Lycée* possesses a service which deals with the follow-up of contacts with the enterprises, with training courses, and the insertion of the students who have already been trained (in the form of a database).

However, these examples have been little imitated and the majority of establishments have no organized observation mechanisms that are integrated in a permanent manner into their structure.

A third means of observing and collecting data seems to have been very little used. The ILO started to recommend it in the 1970s.[10] It consists in finding the support of people who, because of their profession, their responsibilities or their own interest, have a profound knowledge of the situation and the employment trends in their sector of activity and their region. It should be possible to get them to come together in working groups, according to trade, with experienced teachers in the same areas. Such working groups, given an official status by the Ministry, could supply relevant and up-to-date data that would permit, together with complementary expertise and study, the drawing up of useful proposals.

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[10] 'Key informant approach'.

Such an approach was used in 1992 in the Côte d'Ivoire: teachers and professionals of the Interprofessional automobile organization (*Groupement interprofessionnel de l'automobile*) recommended associating private and public training centres into an interprofessional centre (*Centre interprofessionnel*/CIP), administered with equal representation on both sides. Its objectives were to render initial training more vocational, implement continuing education, help in the insertion of the young people who had been trained, and provide advanced courses for teachers. An institutional change in the management of the TVE system put an end to this experience.

1.1.2 Serving the informal sector and apprentices

Even though it is not part of the terms of reference of this study, the improvement of the apprenticeship practised in the crafts and handicraft micro-enterprises often represents a TVE objective in the countries studied. However, in reality, it is rarely implemented, except in Togo. The original French model, adopted in most of the French-speaking countries, did not include apprenticeship training, this may explain why extensive apprenticeship programmes have been developed marginally to the formal TVE system.

This is the case in *Mali* in a large ILO project, followed up by a dual training programme proposed to apprentices by the Swiss NGO, 'Swiss Contact'. The German interventions in Togo and in Benin support similar projects.

The success of these co-operation projects has certainly reinforced the acknowledgement of the possibility and the necessity of intervening in the field within the framework of the public supply of training. Agreement of such a principle was affirmed by CONFEMEN in Bamako, and taken up again in the sectoral development programmes designed by the various countries.

France, which has begun to introduce in-firm training sequences, is gradually abandoning the 'school only' approach that had previously characterized its training system; France is thus moving closer to the German-Swiss concept of dual training. This development has greatly reduced the differences of approach between the co-operation programmes of the various countries working in the field. It allows businesses to be regarded as suitable locations for training just as schools are, and makes it possible to envisage the *alternating* presence of trainees in each of the two locations.

This gives vocational training a twofold purpose: first, to provide students in technical schools with more practical training, which they can acquire on a part-time basis in those nearby businesses, including craft businesses, that agree under contract to take them on; and second, to improve on the training provided to young apprentices by having the latter, during their apprenticeship and on a part-time basis, attend the theoretical training courses that their employers do not provide.

The practice of alternating between school and on-the-job training thus serves the interests of both the modern manufacturing sector of SMEs (the natural job market for students leaving formal education) and the craft industry sector, where job-related training of workers is essential to the modernization of the sector.

These various projects gave the most qualified and best-equipped training centres the opportunity of offering services to young people working in the informal sector. It was by totally integrating this step that TVE in Togo transformed its Colleges of Technical Education (*Collèges d'Enseignement Technique*) by opening them as much to apprentices of the informal sector as to ordinary students. This happened more recently in Benin, although in a still tentative manner, which opened sections dealing in sandwich courses for apprentices that were integrated into the initial training courses of its establishments.

In the Côte d'Ivoire, TVE is not directly responsible for the improvement of traditional apprenticeship, which concerns between 350,000 and 450,000 apprentices, working in 150,000 crafts and handicraft micro-enterprises (Koné, 2001). However, the formal project of apprenticeship, managed by the National Agency for Vocational Training (AFEFOP), concerns about 6,000 unschooled young people from 14 to 25 years of age (30 per cent of young girls). This project mobilizes about 30 advisers in apprenticeship and is based on agreements made with trade associations.

It must be noted that an as yet imperfect co-ordination of the mechanism set up by the AGEFOP causes disruption in the sequence of the training periods undertaken in a centre and those undertaken in an enterprise. The quantity of trainees does not allow for an individualized following-up by the trainers, and the absence or deficiency of support to the establishments committed to the system limits the effectiveness of the project.

It seems that the movement has been launched, and that dual training for apprentices will be, to a greater extent, provided by public TVE centres. This will give them a new mandate comparable in its principle to that of the French Training Centres for Apprentices (*Centres de formation d'apprentis*/CFA), but adapted to the local socio-economic contexts as in Togo (see below the example of the Regional Centres for Technical and Vocational Education (*Centres régionaux d'enseignements technique et de formation professionnelle*/CRETFP).

1.1.3 Dual training

The necessity of finding new ways of making training more vocational, and the desire to have a closer contact with the enterprises, have led most of the TVE systems to take an interest in dual training. It constitutes an approach to initial training which allows for:

- the concrete participation of the professional milieu in the training delivery and a step towards its adaptation to the needs of the enterprises;
- a better reciprocal knowledge of the partners and an opportunity to make the enterprises more aware of the benefits of training;
- the discovery for young people of the reality of life in the enterprises, and the possibility of using their skills;
- the possibility for the students to be trained on materials that the centres, as a consequence, no longer need to buy, which corresponds to a rationalization in the use of equipment.

For the historical reasons mentioned above, the French-speaking countries were little aware of these elements, even though the French model had considerably evolved in relation to this theme. On the contrary, the German and Swiss interventions supported promising projects of dual training. Dual training is now accepted far beyond the countries where TVE was influenced by the German model. Implementation is still limited, but the first experiments seem promising.

Here, it is necessary to point out a difference in terminology. In Africa, the original concept of dual training cannot be implemented. The African employers are far from considering, as do their German counterparts, training as an investment, and their participation in the relationship between school/enterprise is not of the same nature.

In this context, dual training includes all schemes combining school-based and enterprise-based training. It can be either for apprentices, to whom general or theoretical training is proposed, or for students, to whom practical training, under normal working conditions, in an enterprise is proposed, in order to improve the skills and knowledge they have gained at school, making them more professional in their nature. In France, in the first case, these programmes are given a work status *(alternance sous statut de travail)* and in the latter, a school status *(alternance sous statut scolaire).*

In reality, the great majority of establishments are still far from practising this mode of training and those who launch themselves into it are seen as the forerunners. More often than not, the first contact made by students with the reality of work in an enterprise takes the form of work-experience programmes.

The Regional Centres for Technical and Vocational Education in Togo (Centres régionaux d'enseignement technique et de formation professionnelle/CRETFP)

The country which is most advanced in the adoption of this training method is *Togo,* which has succeeded, within the same type of establishment, in organizing a 'double alternance'. Thus in the CRETFP in Atakpamé, while the 200 students preparing the Vocational Training Certificate (CAP) are trained in the crafts and handicraft workshops of the town, the 200 apprentices of these workshops follow theoretical courses in the centre. There they prepare a Certificate of Vocational Qualifications (CQP). This is an exceptional form of pedagogical organization within the framework of a long-term project supported by the World Bank and German and French aid. This experience shows how far a public centre of TVE can go – the courses take place in former technical education colleges – in order to make initial training more vocational and to participate in the improvement of apprenticeship practised in the crafts and handicraft micro-enterprises.

The principle underlying this innovative experiment with CRETFPs owes a great deal to the local influence of German co-operation bodies advocating the dual system: the GTZ, the German volunteer organization

(DED) and especially the Hans Siedel Foundation, which supports the Lomé CRETFP in particular and has provided a great deal of funding to date.

The innovative contribution of the French co-operation mission is precisely that it relates to a downward revision in forecasts of available resources, by supplying schools with facilities that allow them to generate new and sustainable resources by themselves (see below).

The National Centre for Vocational Qualifications (Centre national de qualification professionnelle/CNQP) in Dakar

Dual training made its appearance in the CNQP, in Dakar, long before, at the beginning of the 1980s. Created with the support of the ILO, this centre has the status of a public establishment of an administrative nature, which gives it a form of autonomy unique in the country. It is astonishing that this formula has not been more greatly developed and reproduced in other TVE public institutions. The administrative board of the CNQP is composed in a tripartite manner (state, employers, workers), that allows it to arrange directly the necessary partnerships for the setting up of sandwich courses.

It is based on two programmes. The department of job-related training receives workers for modules pertaining to qualifications that have been designed with the help of the employers in a dozen industrial specialities. The department of initial training receives students in the same specialities for a period of study lasting three years, ending in a Certificate of Vocational Qualifications (CQP), delivered by the CNQP in association with the profession. This diploma is recognized both by the state and by collective agreement. Dual training takes place in the 2nd and 3rd year in seven-week sequences, that is 21 weeks in the centre and as much again in the enterprises.

The CNQP follows up both the pedagogical period of alternate training by ensuring the organization of relationships between its trainers and the tutors or those in charge of the sandwich courses in the enterprises. In so doing, it monitors the training taking place both in the centre and in enterprises.

The project for the Support for the Introduction of Dual Training (Appui à l'introduction de la formation professionnelle par alternance/AIFPA) in the Côte d'Ivoire

This GTZ project aims at allowing enterprises and the state to make joint training proposals which correspond to the needs of the market. In its initial phase, the project envisages undertaking experimental activities in about 10 of the Construction and Public Works Sector trades, from the production of textile/clothing, cars, to electrical and electronic maintenance. These trades have been chosen as a result of 10 sectoral round tables.

The project is based on the collaboration between numerous actors (the Ministry of Youth and Vocational Education (*Ministère de la Jeunesse et de la Formation professionnelle*), the German Agency for Technical Co-operation (GTZ), the National Agency for Vocational Training (AGEFOP), the Development Fund for Vocational Education (FDFP), the Chamber of Commerce and Industry (*Chambre de commerce et d'industrie*), the Chamber of Trades (*Chambre des Métiers*)), and is addressed to young people between the ages of 14 and 24 at different levels of schooling. The participation of employers in the delivery of diplomas is not envisaged. However, the master craftsmen will participate in the evaluation of the dissertations of the trainees.

It is, of course, too early to judge the initial results of this project. Its scale, although the source of already perceptible slowness, is interesting because it will introduce dual training into various sectors, each one presenting its specificity in the operating of the model.

In summary, there is a future for dual training courses in TVE, but a few remarks have to be made about its implementation in Africa:

- *Dual training for students* is certainly not as easy to implement as the examples mentioned above could lead one to believe. The local enterprises are little prepared for this form of collaboration and very few of them will go so far as to receive and follow-up students, even in the tertiary sector. On their side, the centres and their trainers put up obstacles concerning the necessary insurance or the need to stick to the national curricula, an attitude which sometimes covers up for a state of inertia. Thus, in general, the practice of work-experience programmes is very little developed or non-existent. Interested students can do it on their own during school vacation, with no supervision from the teachers.
- Work-experience programmes, even short ones, organized by the centres and followed up by the trainers during the school year, are a first step towards dual training. This could be implemented progressively, taking into account local possibilities. Experience has proved that these contacts with the enterprises are more fruitful when

they are part of a policy of a greater opening up of the centres, proposing, for example, modules of continuing education.

- *Alternate courses for apprentices* are not faced with this problem of the enterprise's capacity to accommodate, as the young people are already there. The problem is more one of finding the centres ready to accept them. Numerous NGOs undertake this interfacing activity between the artisan, and their professional organizations, and the centres. The time of absence from the place of work can cause a problem, but the experiences mentioned above show that it is possible to obtain an authorization of absence of about one day a week or one week per month.

It is to be noted that the concept of a dual type of training, which has been rendered popular mainly by the German and Swiss interventions, is starting to become known, appreciated when it is put into practice, and that its more general application is envisaged by various countries (see the 10-year programmes). This acknowledgement is the more remarkable because it is the result of training systems strongly influenced by the French model, which were for a long time incompatible with this training culture.

1.1.4 Continuing education

It constitutes an objective of TVE, which is more or less affirmed according to the countries and corresponds to a mission entrusted to the training centres. This trend, based on the model of the GRETA[11] in France, was often initiated by the French Co-operation. These structures mobilize, on a part-time basis, regular TVE teachers in order to offer continuing education to workers or to the unemployed.

This mechanism is of particular interest in Africa to the industrial trades. In fact, even if the private sector responds quite well to the demands of the tertiary sector, it often does not possess the necessary equipment in machinery, tools or laboratory materials that are available in the industrial centres of the public sector. For the latter, continuing education allows for a greater utilization rate of equipment and a possibility of complementary resources that are useful for rounding off often insufficient operating budgets.

Independently of this financial interest, the implementation of this mission can have, as long as one attends to it, interesting consequences on the initial training given in the centres, often dispensed by the same teachers. The better knowledge of the enterprise's needs in continuing education can reveal deficiencies in initial training and allows to adjust the regular initial TVE programmes delivered by the institution.

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[11] GRETAs (*Groupement d'établissements*) are networks of public TVE institutions (TVE *lycées*) established to provide continuing education.

Finally, the concrete contacts made with the enterprises can facilitate work-experience programmes for the students, the organization of dual training and the placing of graduates.

The implementation by TVE of the supply of continuing education is very unequally developed in the various countries.

In *Mali,*

The creation of three Units for Training and Support to Enterprises (Unités de formation et d'appui aux entreprises/UFAE) constitutes one of the most advanced examples of the institutionalization of continuing education. Today, they have been in existence long enough to enable one to talk globally about success and to consider their deficiencies as remediable. Set up as a result of a law passed in March, 1997, they were mainly inspired by the French GRETA.

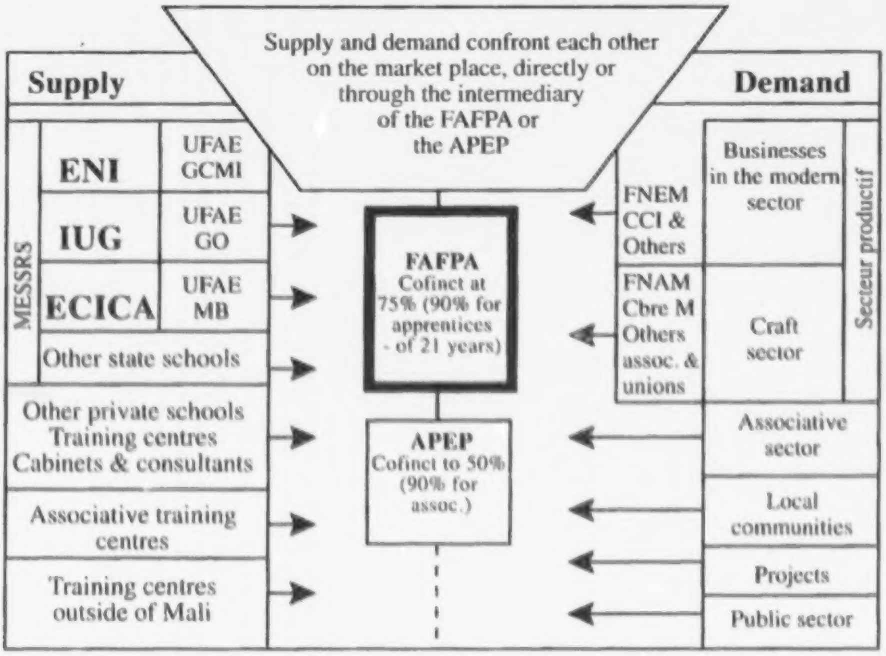
In France, the laws of 1971 on vocational education gave to public TVE institutions the greatest liberty to operate on the large continuing education market. Their regrouping at a local level, within GRETA, allowed them to compete with private training organizations in having their teachers participate in the job-related courses given to a company's staff. This innovation constituted a first opening of initial training towards the world of work and the enterprise. It is important to remark that the model has not been 'duplicated' and that the arrangements adopted by Mali are quite different from those of the French model. This is particularly the case both with regard to the status of the UFAE and to the designation of the directors by appealing for applications for candidatures.

Units for Training and Support to Enterprises (UFAEs) are located in Bamako (there is a possibility that subsidiary units might be set up in the interior of the country) and are associated with three principal centres of training: the Central School for Industry, Commerce and Administration (for maintenance and buildings) (*École centrale pour l'industrie, le commerce et l'administration*/ECICA), the National School of Engineers (for civil engineering, mines and industry) (*École nationale d'ingénieurs*/ENI) and the University Institute for Management (for management and organization) (*Institut universitaire de gestion*/IUG).

The UFAEs have the status of public establishments of a scientific, technological and cultural nature (EPSTC), which confers upon them both a legal status and financial autonomy, giving them the right to be registered with the Support Fund for Vocational Education and Apprenticeship (FAFPA), and to obtain co-financing in the same way as the private operators. From this point of view, total administrative autonomy in relation to the establishments to which they are associated was indispensable.

Chart 2 below illustrates the vocational training market.

The vocational training market


Supply and demand confront each other on the market place, directly or through the intermediary of the FAFPA or the APEP
Supply
Demand
MESSRS
ENI
UFAE GCMI
IUG
UFAE GO
ECICA
UFAE MB
Other state schools
Other private schools Training centres Cabinets & consultants
Associative training centres
Training centres outside of Mali
FAFPA Cofinct at 75% (90% for apprentices - of 21 years)
APEP Cofinct to 50% (90% for assoc.)
FNEM CCI & Others
FNAM Cbre M Others assoc. & unions
Businesses in the modern sector
Craft sector
Secteur productif
Associative sector
Local communities
Projects
Public sector

Source: Dessallien, C., 2000. Supervisory mission for the Franco-Malian Support Project for Vocational and Job Training (PAFPE) – Final Report – French Embassy in Mali, Department for Co-operation and Cultural Action.

Their mode of operation, fixed by decree, guarantees the transparency of the administration. An Administrative Advisory Board, comprised of representatives of public-and private-sector authorities, defines the annual programme on the proposal of the director. A consultative committee, which includes representatives from professional associations, the FAFPA and the Observatory, monitors programme implementation. The directors are nominated by ministerial order, after a very interesting selective recruitment procedure that has only very recently been put into use by Mali's civil service (interview of candidates, 'shortlist').

There is a definite growth in the activities of the UFAE: 46 contracts in 1998 (for a turnover of 59.4 million CFA francs) and 79 in 1999 (turnover: 197 million). It is to be noted that the Units for Training and Support to Enterprises/Maintenance and Buildings (UFAE/MB), associated with the Central School for Industry, Commerce and Administration (ECICA), under the impetus of a dynamic director, direct their activities clearly towards the crafts industry, where their services are appreciated. This tendency is also highly noticeable with regard to the FAFPA: this is due to the favourable market situation and the consequences involved in the length of time taken over complying with the procedures of the formal sector (see below, financing funds).

Table 18. Evolution of the development of training undertaken by the UFAE. Number of those trained per sector, 1997-2001

Year	**1997**	**1998**	**1999**	**2000**	**2001**	**Total**
a. Number of persons-months of training to be financed – Target PCFP	5,700	7,000	8,300	9,300	10,000	40,300
b. Number of persons trained	–	1,118	1,023			2,141
Modern sector						
c. Number of persons trained	536	460	4,132			5,128
Crafts sector						
d. Number of persons-months trained	1,128	741	5,804			7,673
Crafts sector						
e. Number of persons-months of training financed	1,128	1,859	6,827			9,814
Total (b+d)						
f. Level of global performance (e/a)	**20 %**	**27 %**	**82 %**			**24 %**
g. Modern sector level of performance **(b/(a/2))**	0%	32%	25%			11%
h. Crafts sector level of performance **(d/(a/2))**	40%	21%	140%			38%

Source: Dessallien, C. 2000. Mission for the follow-up of the Franco-Mali Project of Support to Vocational Education and to Employment. Final report project. Mission de suivi du projet franco-malien d'appui à la formation professionnelle et à l'emploi. Projet de rapport final/PAFPE. French Embassy in Mali, Department of Co-operation and Cultural Development.

A limitation has to be pointed out: the impact of this arrangement on initial training is low. The desire to be rapidly known and to be acknowledged by the enterprises has led to neglect relationships with the associated establishments. Thus, the UFAEs have not, for the moment, contributed to the evolution of initial training (the same drift is visible in certain GRETA in France) (see *Table 18*).

The setting up and the operation of the UFAEs were rendered possible by a high level of French aid, above all in technical assistance, complemented by a subsidy from the Government of Mali. Today, the sustainability of the UFAEs has to be consolidated insofar as their turnover does not yet cover their cost. However, it is important that the experience is fully acknowledged and integrated into the Malian institutional fabric before French aid ceases.

In *Madagascar,*

Continuing education officially lies within the TVE sector. The existence of an Intervention Fund for Vocational Education (*Fonds d'intervention de la formation professionnelle*/FIFP), has facilitated its official acknowledgement as a part of the TVE mission, under the label of Vocational Education leading to Qualifications (FPQ).

One of the objectives of the FPQ is to share the costs with the beneficiaries and the employers. The FIFP co-finances, through decentralized procedures required by the size of the country, the training programmes identified by the Regional Inter-Professional Associations (ARIF).

The ARIFs represent an interesting initiative. The eight ARIFs are private associations of employers, in charge of ensuring the implementation of regional training plans and of contributing to the development of job-related training.

The enterprises in each region are made aware of the aims of the association and are mobilized in that direction. ARIFs collect the contributions of members and co-finance the training that they have identified. Lastly, they certify these expenditures in view of obtaining a tax reduction given by the state.

A partnership agreement between the ARIF and the Council of Technical and Vocational Education (CNFTP), allows the latter to give technical and financial support for the design, implementation and follow-up of training plans presented by the ARIF. At first, these associations benefited from a contribution from the Intervention Fund for Vocational Education (FIFP). However, at present, they are encountering various types of difficulties: the large enterprises, confident in the fact that they have their own facilities, hesitate about taking up membership, the contribution not being very easy to recuperate, and the employers have a tendency to fear that training their staff might incite them to ask for wage increases.

The ARIFs continue their activities even though they no longer benefit from the contribution of the Fund and are looking for new donors. The principle upon which this is based represents an interesting experience and the difficulties encountered in Madagascar are perhaps non-existent in other countries.

If adapting to the demand of the enterprises must constitute the main element in the reforms to be undertaken in the public supply of training, this demand must still be clearly formulated and expressed, if possible, in collaboration with trade associations. The creation of the ARIF offers, without doubt, an original response to this problem.

In *Senegal,*

Decentralized job-related training mechanisms have been set up in four principal centres: in the National Centre for Vocational Qualifications (*Centre national de qualification professionnelle*/CNQP), at the Polytechnic School of Higher Education (*École supérieure polytechnique*/ESP) and in two Technical *Lycées* (Dakar and Saint Louis). These mechanisms are self-financed, but they have a limited scope.

In the *Côte d'Ivoire,*

The Côte d'Ivoire was the first country in sub-Saharan Africa to pass a law in 1977 about the access of the active population to continuing education. Since then, a mechanism has existed for apprenticeship and training during employment. The law obliges all enterprises to financially contribute to the training of their staff.

The mechanism came about as a result of a combined desire on the part of the Government of the Côte d'Ivoire and the employers to reinforce the qualifications of the workforce during a period of sustained growth. This process of social dialogue was supported by ILO. Thus, as from 1977, some public establishments for technical education undertook job-related training programmes for enterprises.

The National Agency for Vocational Training (*Office national de formation professionnelle*/ONFP), in charge of administering the apprenticeship and continuing education taxes, was a tripartite organization composed of an equivalent number (four) of state representatives, organizations of employers and of workers. The ONFP was given financial autonomy. The resources coming from taxes went into an account at the Autonomous Bank for Amortization (*Caisse autonome d'amortissement*). However, as the Public Revenue Department could not be circumvented, there was a risk of funds being held up, which in fact did happen later. This question was resolved by the reform of 1992 that suppressed, after the tax had been collected by the Tax Department, the Revenue Department stage and instituted a new autonomous structure of financing – the Fund for the Development of Vocational Education (FDFP) – together with two agencies: one in charge of the promotion and the observation of employment (Agency for the Study and Promotion of Employment/AGEPE), the other for the creation and the implementation of training (the National Agency for Vocational Training/AGEFOP).

In 1998, 432 training operators were counted in the *repertory of training bodies authorized by the Fund for the Development of Vocational Education (FDFP),* of which 363 were private consultancies and internal training centres and 69 public establishments (see *Table 19*). These bodies had, over the period from 1993-1997, trained 126,965 trainees, 89 per cent of whom represented the salaried staff of enterprises contributing to the levy, and 11 per cent of whom were other members of the active population (Koné, 2001).

Table 19. Recapitulative table of the job-related training activities and projects of the FDFP in 1998

Development activities and projects	Total financing	%	Number of trainees	%
Training plans	6,975,318,486	66.0	38,882	69.8
Joint FPC projects (1)	728,656,118	6.8	2,063	3.7
Joints PAFPA projects (2)	2,134,515,600	20.2	14,110	25.4
Joint FIA projects (3)	432,979,790	4.1	629	1.1
Studies	300,449,310	2.9		
TOTAL	**10,571,919,304**	**100.0**	**55,684**	**100.0**

(1) Continuing Education (Formation Professionnelle Continue).

(2) Support project for the training of the working population (Projet d'Appui à la Formation de la population Active).

(3) Initial training and apprenticeship (Formation Initiale et Apprentissage).

Source: Fund for the Development of Vocational Education (FDFP), 1999.

In certain establishments undertaking continuing education, the pedagogical equipment is being improved, the teachers have obtained new experience and have a greater sense of motivation. This reflects positively on initial training. It is the case, for example, in the Advanced Training Centres of the Automobile Industry (*Centre de perfectionnement aux métiers de l'automobile*/CPMA).

As a first conclusion, it can be noted that UFAE and ARIF represent within TVE promising innovations in the field of job-related training. The market is extensive and has only just been discovered in certain countries like Senegal.

The impact on initial training is, for the moment, disappointing, but this takes time, as the French GRETA have shown. The solution resides perhaps in a new organization of establishments that favours the building of relationships between different forms of training, their public, the trainers and the professionals of the sector, who are as interested as much in initial training as in continuing education. In this respect, further mention will be made below of a new model of establishment that is under preparation in France.

It must also be noted that training interventions towards apprenticeship are included in job-related training, the apprentices being considered as workers. However, the provision of this complementary form of training by TVE, as in Togo, assimilates it more to a form of initial vocational education and this represents for TVE the beginnings of an important evolution in the years to come.

1.1.5 The future of technical education

Technical education leads to the technical *Bacs* that mark the end of secondary school and a passage towards higher education. In fact, the transition of graduates with the technical *Bacs* towards the university has always been problematic. Often, universities offer, according to the French model, a short form of technical higher education, over a two-year period, leading to the University Diploma of Technology (*Diplôme universitaire de technologie*/DUT). But this type of education is usually reserved for those having taken the scientific *Bacs*. This way of recruiting denies technical *Bac* graduates the access to further studies in their field.

This is a problem common to most of the French-speaking countries of the sub-region. It shows a lack of continuity and coherence between secondary education and higher education, and often leads to conflicts between the concerned Ministries. The autonomy given to universities means that they usually feel little concerned by the search for greater consistency in TVE provision.

At the same time, the technical *Bacs* have found themselves having to compete even within the technical *lycées* themselves with the technical certificates (in Senegal) or the vocational *Bacs* (in Madagascar). In Mali, an autonomous establishment, the Central School for Industry, Commerce and Administration (ECICA), installed within the same walls as the technical *lycée,* proposes training in direct competition with the technical *Bac*. All these new diplomas have been created to make education more vocational and prepare an opening from secondary school which leads to employment. These new vocational courses tend to place the technical *lycées* in the field of initial vocational education, resulting in the technical *Bacs* no longer being in the right place.

In both cases, continuing in higher education or entering in the labour market, technical education is in a bad position. As a consequence, it is confronted with urgent strategic choices.

In France, the Advanced Vocational Training Certificate (BTS), set up after the creation of the technical *Bacs,* has constituted the necessary vocational outlet for the new *Bac* holders. Their rapid development in Africa could change the situation of the technical streams. Their future will depend on the way in which the BTSs are implemented and developed.

(a) Alternative options

(i) The BTS as a privileged path enabling technical Bac graduates to continue their studies

This solution would deny most of the holders of a Technical Certificate (BT), the possibility of continuing their studies towards higher qualifications, even if bridges can be arranged for the best students. It would permit, on the other hand, to revitalize the technical *Bac*, but only on two conditions:

- Ensuring a strong vocational content in the BTS curricula. However, this may not be possible within the usual two-year duration, as the formula of the Advanced Vocational Training Certificate at a level of 'Bac + 3', delivered by the university polytechnic complex of Cotonou, has shown. In the same spirit, in France, numerous BTSs propose a complementary level, prepared over an additional one-year period, in order to improve the vocational element.

- The vocational education content of the BT must be improved. The employability of BT graduates is not yet obvious. If their access to a BTS is restricted, it might be worth examining the possibility of prolonging the training period by one year. This is, for example, the choice made in Mali, where the BTs are prepared over a three-year period at the ECICA, in Bamako.

(ii) The BTS as a privileged path towards the continuation of studies for BT graduates

This solution would condemn *Bac* graduates to remain in the dead-end where they find themselves today. It would allow, on the other hand, BT graduates to complete their courses, but there would be a risk, as a consequence, that the training of technicians (BT) would be reduced in favour of more qualified graduates (BTS), which does not correspond to the needs of the market.

(iii) Placing all 'Bac + 2' vocational programmes under the Ministry of Higher Education

This option seems to be emerging in Senegal, where the university proposes a University Diploma of Technology (DUT), and an Advanced Technical Diploma (DTS) open to science *Bac* graduates. This solution would be the worst for both streams: the 'Technical *Bac*' would remain a dead-end with an insufficient vocational education input, and the best BT graduates would have no chance to access post-secondary streams.

In summary, it would seem that the first solution would be the most efficient by providing the maximum number of outlets for the existing diplomas. Correctly managed, it could enable the training of various types of technicians and advanced-level technicians. On the labour market these would appear to be complementary in nature.

(b) Administrative organization of the streams

The probability that this solution be chosen depends, in the various countries, on the decision of the three sub-sectors concerned: technical education, short-term higher education and initial vocational education. In this perspective, the choice of the Ministry in charge of the BTS appears to be an important element.

(i) BTS as part of initial vocational education

The establishments of initial vocational education should progressively improve their relationship with industry and offer, in this way, better employment opportunities to BTS graduates.

(ii) BTS as part of secondary education

Such BTS, isolated from the vocational courses, CAP, BEP, (Vocational Training Certificate (CAP), Technical School Certificate (BEP)), and prepared in technical *lycées* that have very few contacts with the enterprises, might not be vocational enough.

(iii) BTS as part of higher education

There is a risk that such a programme open mainly to Science *Bac* graduates, might be too theoretical, and would not correspond to the vocational education content required by the employers.

Today, the instability of the management pattern does not exclude any of these scenarios.

In France, consideration is being given to the creation of a new type of institution, a 'trade *lycée*', which would offer, by trade, technical and vocational secondary education, post-secondary vocational programmes and job-related training. This project, founded on the basis of trade consistency and no longer on administrative patterns, is certainly not easy to implement. It nevertheless constitutes an interesting option and could form not a model, but a source of inspiration, for the French-speaking sub-Saharan African countries.

However, due to a lack of political will for technical education in sub-Saharan Africa, the present situation could probably last for a long time. Such a dead-end could thus lead to a more radical solution which would consist, as is sometimes suggested, in Senegal, in suppressing the technical *Bacs*. This choice would not in itself resolve the problem of training at the level of the *'Bac + 2'*.

1.1.6 Labour market assistance

Such services for TVE graduates are very rare. In the Côte d'Ivoire, up to 1999, a programme for labour market assistance (*Programme d'aide à l'embauche*/PAE) was implemented by AGEPE. Industrial attachments were proposed to graduates, some of which could lead to employment. However, this programme was disrupted due to its low cost-effectiveness (1,252 participants up to 1996 and only 376 found employment) (Koné, 2001).

In Senegal, a formula of 'transit workshops' functions in certain establishments, like the National Centre for Vocational Qualifications (CNQP). It consists in proposing contracts on a four-month renewable basis, during which time unemployed graduates produce goods for the centre (tables with benches, for example, at the CNQP). They receive in exchange individualized training to make up for their deficiencies.

This proposal applies to only a very small number of young people leaving the school, and although it enables them to engage in productive work, it has not really proved its worth in terms of integrating them into the workforce.

1.2 Transforming the institutional environment

1.2.1 Governance and planning

The term 'TVE' designates, on the one hand, technical secondary education leading to the technical *Bacs,* and allowing for access to higher education, and, on the other hand, vocational programmes leading to a specific occupation. The necessary relationship between training and employment should be the joint preoccupation of both streams and justify bringing them together in a common concept.

Just as in the French model, the TVE sector, in sub-Saharan Africa, has from the beginning been placed under the Ministry of Education. Consequently, TVE experienced a crisis of identity. Often scorned by the school institution, this form of education is perceived by families and presented by political leaders as an asset for employment and economic competitiveness. Requested to provide rapid responses, TVE has not yet found the modes of organization and intervention necessary to satisfy all expectancies. The varying nature of the Ministries in charge gives a good illustration of this crisis of identity.

Three main management options are usually found in the French-speaking African countries:

- the attachment of the whole of TVE to the Ministry of Education (as in Mali up to now);

- the constitution of a separate Ministry (Benin, Côte d'Ivoire, Madagascar, Senegal, Togo);
- the separation between technical education, attached to the Ministry of Education, and vocational education, conferred upon the Ministry of Employment and Labour.

These two latter options have the principal merit of reinforcing the specificity of vocational education. However, the consistency of the sector and its effectiveness depend mainly on institutional capacities and on the commitment and abilities of the decision-makers. The Côte d'Ivoire's Minister in the 1970s, or the Minister from Togo at the end of the 1980s, have both given a strong impetus to the policies of their respective countries in this area.

In *Senegal,*

The TVE sector has always been very unstable. In the junior Ministry in charge of Literacy, Technical and Vocational Education, which has, since May 2000, become a separate Ministry wholly in charge of TVE, two departments share responsibility for TVE institutions: the Department of Technical Education (DET) and the Department of Vocational Education (DFP). Thus, inside the same *lycée,* certain sections are covered by the DFP (for the BT, the BEP, the BTS), whilst the others are covered by the DET (the technical *Bacs*). As a consequence, the head of establishment must report to both entities.

The regional training centres for apprentices (CRFP) constitute an autonomous project (financed by the European Union) within the Ministry. This confers upon them a specific status which does not facilitate their integration into the other segments of the training system.

There is uncertainty also with regard to technical training at the '*Bac* + 2' level. Thus, the BTS is considered as vocational education when it is provided in the *lycées*, but similar programmes delivered at the Polytechnic School of Higher Education come under higher education. This haziness with regard to the management of the *Bac* + 2 preoccupies those in charge of the Department for Vocational Education (DFP), who fear that this responsibility might be entrusted to the Minister of Higher Education.

In fact, two types of reform strategy have been developed in the various countries:

- reform 'from above', by creating national institutions in charge of establishing contacts with the labour market, to analyze the data thus collected, and to advise or to support both the supervisory bodies and the centres;
- reform 'from below', by giving the establishments themselves sufficient autonomy in order to establish these contacts and decide with their local partners which services to provide, the supervisory bodies giving their necessary approval at a later stage.

These two strategies are not contradictory, but in reality the lack of resources or the Ministry preference results in a tendency to favour one rather than the other.

1.2.2 The institutional setting

(a) at the national level : the support mechanisms

In the *Côte d'Ivoire,*

The Agency for the Study and Promotion of Employment (AGEPE) is a Public Establishment of a Commercial Character (Etablissement Public à Caractère Commercial (EPIC)), placed under the supervision of the Ministry of Employment. Its observation activities have supplanted the section on promotion of employment (assistance in insertion, creation of enterprises), which is suspended.

The National Agency for Vocational Education (AGEFOP), created in 1992, under the supervision of the Minister in charge of TVE, is responsible for promoting job-related training for enterprises and apprentices. It has responsibility for the identification of training needs and the preparation of training projects.

Its activities are mainly financed by the state and the Development Fund for Vocational Education (FDFP). It deducts 30 to 40 per cent of the training projects' cost as overhead and allocates the balance to training providers through subcontracting agreements.

In fact, it seems that the mission of observatory entrusted to the AGEPE, constitutes a handicap for the 'Marketing and Prospective Department' of the AGEFOP, to the extent that the latter has not been authorized to undertake job-content analysis required for designing training programmes. Furthermore, the Department of Technical-Pedagogical Curriculum Development within the AGEFOP duplicates some responsibilities of the Department of Planning of the Ministry of Education.

The global assessment of the TVE policy of the Côte d'Ivoire, which takes place in an institutionally dense environment, is still not convincing. The juxtaposition of institutions and of decision centres produces as much overlapping as there is work of a complementary nature. Due to a lack of a global simplification of the system, or of a more efficient form of supervision, the principle which underlies the distribution of the tasks between the diverse institutions needs to be set out in more detail. Furthermore, the permanent relationship between the training centres and these bodies needs to be reinforced.

It is, for example, unfortunate that the creation of the position of Executive Secretary of Training/Employment Relationships (SERFE) at the institution level remained a bureaucratic initiative, with no real impact on training provision.

In *Madagascar,*

Four large national bodies, attached to the Ministry for TVE, manage the system:

- *The National Council for Technical and Vocational Education (Conseil national de la formation technique et professionnelle/ CNFTP).* In activity since 1992 it is administered by public and private representatives. It is responsible for guiding the training policy so that it is consistent with the needs of the economy and the demands of the market. It also administers the intervention funds allotted by the Malagasy State, the IDA and the employers who subscribe to the Intervention Funds for Vocational Education (FIFP). This intervention of a new body in the organization and financing of training created in the beginning some tension with the Ministry.
- *The TVE Personnel Resource Centres (CERES).* Created at the same time as the CNFTP, and also administered by a joint representation authority, it is responsible for enhancing the competences of trainers and putting at their disposal, as well as that of the enterprises, its services in curriculum development and training programmes design. In 1998, it created a National Committee for Curriculum Development (CNEP), in order to motivate and encourage civil society to participate in the implementation of a TVE system adapted to the needs of the country.
- *The National Observatory for Employment and Training (ONEF),* mentioned above. Many of its assignments concern TVE;

identification of skill needs and the evaluation of the training provided (effectiveness, impact, adjustment).

- *The Inter-Regional Organization of Establishments of Technical and Vocational Education* (GIREFTP). Created at the same time as the CERES and also administered by a joint-representation authority, it promotes the relationships of the centres with the enterprises on a regional basis, particularly with regard to employment and work-experience programmes.

All of the Malagasy mechanisms put together present a very complete range of accompanying services for TVE, foreseen to be complementary. However, long decision-making circuits, weaving between the different organisms, do not contribute to the emergence of a new dynamic at the training-centre level. An audit undertaken in 1999 has furthermore noted that "the system does not respond to the preoccupations of the employers and to the competency needs".

In reality, this institutional setting leads to overlapping and duplication. Conflicts even arise (responsibilities of the CNFTP, considered to be too broad by the ONEF, priorities imposed by the World Bank, misallocation of funds).

Without making any judgements on these remarks, one is tempted to establish a parallel with the Côte d'Ivoire situation. In both of these countries, the mechanisms established in order to bring a little dynamism to the TVE system do not seem to have produced a considerable change at establishment level.

In *Senegal,*

The National Agency for Vocation Training (ONFP), which has been in operation since 1988, finances vocational training programmes and supports the creation of new centres. As already mentioned, the ONFP is financed by an employer-paid levy. A third of these resources are consumed by the operating of the Agency and two-thirds are given over to the financing of training. In 2000, the Agency thus financed the training of 4,000 persons. The training is undertaken by various providers (56 in 1999).

This mechanism creates at least two problems. First of all, the lack of resources with regard to needs. Then, the lack of transparency in the choice of training providers. The enterprises and the artisans are not associated with the decision-making. In addition, the implementation of training is not done through tendering, which would put all the providers on an equal footing.

(a) At the establishment level : the innovations

(i) The vocational lycées *of the* Côte d'Ivoire

Even though these were created some time ago, in 1983, during the prosperous period of the Côte d'Ivoire's economy, it is worth while going back over and studying the original arrangements of these establishments.

The regrouping within the same establishment of all training corresponding to one particular trade simplified the relationship with the professions. It also permitted maximum use of equipment and constituted an advantage for job-related training. It must be noted that this principle is one of the key elements of the reform being prepared for vocational education in France, where mention is made of 'Trade *Lycées*' (see below).

The enterprise internships at the end of the training courses were compulsory for BT students and *lycées* had to conduct follow-up studies. On the other hand, a post of Executive Secretary of Training/Employment Relationships (SERFE) was set up as the driving force for promoting relations with enterprises. This unit's activities were supposed to permit a permanent adaptation of training to the needs of the profession. Lastly, the establishment had extensive autonomy for the implementation of training courses designed in collaboration with the enterprises.

It seemed that the dynamism expected from these institutions had not been really maintained by the Ministries that were successively in charge of TVE. Thus, even though all the TVE establishments now formally possess a SERFE, their mission is badly integrated and their resources highly insufficient.

The organizational patterns found in these vocational *lycées* of the Côte d'Ivoire, in CNQP in Dakar, or in the CRETFP in Togo (see above) can provide interesting ideas to reform TVE institutions in sub-Saharan Africa. However, these innovative establishments have not been the object of particular attention and interest from decision-makers. This suggests that the reforms do not suffer from a lack of models or ideas, but rather from inertia and institutional weakness.

(ii) The former advanced training centres: the CNQP (Senegal), the CPPE (Benin), the CFM (Côte d'Ivoire).

Set up in the 1980s with the support of the ILO, these centres were conceived in order to respond directly to the needs of the enterprises by providing continuing education and advanced courses for the workers. Their status of autonomy facilitated relationships with enterprises (CNQP, CPPE). These have produced a culture of dual training that has enabled their trainers to have regular contact with the technical management of the enterprises. These establishments have either partially (CNQP) or totally (CPM) been reconverted to initial training. Within this new framework, they have often preserved their practice of relationships with enterprises and could serve as a model for the other establishments in which teachers and managers have had only little or no experience in school/industry partnership.

(iii) The Mixed Technical College (Collège technique mixte/CTM) *of Antananarivo, in Madagascar*

Certain trades are particularly interested in the implementation of training for their personnel. These are often sectors in which skill gaps affect directly competitiveness. Such trades are often willing to invest in a training centre. This was the case of the CTM for the clothing trade, tourism and the hotel business.

The centre works in partnership with various tourist institutions, either public or private, and with numerous enterprises in both the hotel business and the clothing industry. It provides initial training, including industrial attachment and continuing education. The employment rate of graduates is about 60 per cent for the hotel industry and about 100 per cent for the clothing industry (Zoana, 2001).

(iv) The BTS 'maintenance' of the Delafosse Lycée *in Dakar*

In certain cases, innovation only concerns a specific area within an establishment. With support from Belgium, the Delafosse *Lycée* has opened a modularized training programme for the BTS in electro-mechanical maintenance. This training was designed in partnership with 20 enterprises, and with other centres. It lasts 20 months, spread over four modules in all, and includes a two-month training period in an enterprise.

The training of the trainers will take place in Belgian enterprises, for which the Brussels Wallonian community will be offering grants.

The training costs 25,000 CFA francs per month, the remuneration of the trainers is 2,500 CFA francs, plus an incentive allowance.

1.2.3 Financing

(a) at a national level : 'the funds'

In the *Côte d'Ivoire*,

The FDFP was established in 1992, to replace the ONFP and the FNR with a greater independence from Treasury. It is run by a tripartite administrative committee (government, employers and workers).

The Fund collects the additional tax for continuing vocational education (1.2 per cent of the wage bill of the enterprise) and, on this account, finances job-related training programmes. It also collects the apprenticeship tax (0.4 per cent of the wage bill) and uses it for initial training activities, and for the training of apprentices. The FDFP also finances studies related to the overall planning of training provision.

Even though the Fund does not undertake training activities itself, it still participates in their preparation, in their financing, in their follow-up and evaluation. It thus plays a central role in the monitoring of vocational education.

The FDFP has led to the emergence and to the development of a training market (363 private authorized organisms) and has effectively contributed to the expansion and to the improvement of the public and private supply of training. It is to be noted that the FDFP addresses in priority the needs of the modern sector. This focus is reinforced since the termination of the Support Project for the Training of the Working Population (*Projet d'appui à la Formation de la population active*/PAFPA), aimed at artisans and the unemployed, and financed by a World Bank loan.

In *Mali*,

The reform of the TVE sector in Mali involves the reconstruction of the institutional setting including the financing of vocational education. Within this context, the FAFPA contributes to a great extent to the emergence of a training market.

Since 1997, the FAFPA has had a great impact on the provision of job-related training. Its objectives include:

- improving the level of the workforce in order to respond to the needs of the labour market;
- improving the quality and the capacity of the vocational education institutions; and
- encouraging the enterprises to participate in the financing and management of job-related training.

Placed under the supervision of the Ministry of Employment, the FAFPA is financed by an IDA credit (3.5 billion CFA francs over five years), the Malian Fund for Vocational Tax of 0.5 per cent of the wage bill (300 million CFA francs in 1998) and by a subsidy from the French and Swiss Governments. It assists modern and informal-sector enterprises to design their training plans. Once approved, the plans are financed to the level of 75 per cent. The FAFPA has progressively designed a directory of 110 accredited centres (see Table 20).

The development of training has been more rapid in the Crafts and Handicrafts sector, where the National Federation of the Artisans of Mali (FNAM) has played a more effective role of interface, than in the modern sector, which has suffered from heavier procedures.

Besides providing support for the design of training proposals and for their implementation, the Fund foresees to support accredited providers, including the private centres, by financing up to 50 per cent of their equipment (distributed equally between subsidies and loans without interest). Another field of the Fund's intervention lies in the training of the trainers.

Table 20. The FAFPA activities (1998/1999)

Sector	Number of financed training courses	Number of trainees	Number of trades	FAFPA financing*
Apprentices	93	4,592	18	187
(informal sector)		860		
Modern sector	106	2,140	22	410
Including graduates		100		

Source: Support Fund for Vocational Education and Apprenticeship (FAFPA) (internal document)

* (in millions of CFA francs)

(b) at the level of the establishment : privatization or self-financing

(i) *TVE institutions in Senegal*

Having been able for some time now to develop income-generating activities to compensate for their insufficient operating budgets, the training centres have been allowed since 1991 (Decree 91/1355) to generate new resources, with no imposed limitation. These resources are administered by the bursary services of the centres, under the responsibility of the chief of establishment. This decree allows for an extensive development of activities that generate revenues for the centres and, above all, for the teachers.

'Productive work' had, at first, consisted, through subcontracting, in producing products for enterprises or in participating in the public markets (school furniture, for example). However, the training market rapidly appeared to be the most lucrative. Today, it constitutes the main source of complementary revenue. A survey was carried out in four establishments in order to get a better idea of these activities.[12] In almost all the schools visited, parallel recruitment takes place for students who did not pass the entrance examination and to whom fee-paying schooling is offered, usually in evening courses. Duration is prolonged for one year to compensate for a reduced weekly timetable.

This practice exists in most Ministry of TVE institutions, including the technical *lycées*, the Technical and Vocational Education Training Centre, called the 'CFPT Senegal-Japan', for BT courses, the Commercial Vocational Training Centre for '*Bac* + 2' programmes, the Polytechnic School of Higher Education (not surveyed).

An extreme case can be pointed out in the technical *lycée* in Saint-Louis. In fact, a private centre for tertiary training rents the premises and uses *lycée* teachers during the holiday periods.

The Polytechnic School of Higher Education (ESP) recruits a large number of fee-paying students who prepare Advanced Technical Diplomas (DTSs). These diplomas are very much appreciated (1,800 candidates in 2000-2001 for 180 places in the five industrial DTSs, without counting those of the tertiary sector). They closely resemble the

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[12] This survey was carried out at the beginning of the year 2001 by the African Centre for Higher Education Studies in Management (Centre africain d'études supérieures en gestion/CESAG), on behalf of IIEP, with the approval of the Minister and the support of his advisers.

University Diploma of Technology delivered by the school for ordinary students. Students preparing for the DTS are almost equivalent in number to those registered for the DUT.

At the ESP, which comes under 'higher education', the distribution of resources generated is stipulated by a specific Ministry regulation: 50 per cent for teachers, 30 per cent for reinvestment, 10 per cent for the establishment and 10 per cent for the Ministry.

These fee-paying courses are in line with the prevalent philosophy for cost-recovery. However, in a context of high social demand, there is no guarantee, at least in the short and medium term, that they correspond to market needs. Furthermore, these fee-paying training courses are in competition with private training. Already certain promoters of the private sector condemn what they call 'unfair competition'.

The distribution of income generated by these activities takes place on an ad hoc basis. It seems necessary to evaluate the ways resources are used in view of achieving a balanced sharing between teachers, other staff and the budget of the school.

The IIEP has attempted to contribute to this by studying the following four establishments' own resources: the Commercial Vocational Training Centre (CFPC), the Technical and Vocational Education Training Centre (CFPT Senegal-Japan), the Technical *Lycée* Delafosse, all three in Dakar, and the Technical *Lycée* Peytavin in Saint-Louis. *Table 21* below presents a synthesis of the results of this survey.

Table 21. Main results of the survey on income-generating activities

Establishments Criteria	Technical (Industrial) *Lycée* Delafosse	CNPT Senegal-Japan	Technical Lycée PEYTAVIN	CFPC Delafosse
Number of students				
Technical education	1,072		351	
Vocational education	112	202	22	256
Fee-paying vocational education	182	305	48	224
Continuing education	150	84	40	15
Personnel				
Teachers	86	36	54	28
Administration	25	9	23	7
On the establishment's budget	10	9 (up to 80% on the budget)		
Budget allocated by the state (FCFA)	**32,000,000**	**15,800,000**	**20,600,000**	**2,000,000**
Financial partners	French Co-operative Mission French Community	Japan	French Co-operative Mission	None
Own resources (FCFA)	**50,962,875**	**98,390,000**	**5,622,800**	**43,094,565**
– Fee-paying training	36,125,000	88,250,000	121,500	42,194,565
– Continuing education	14,837,875	10,000,000	3,451,300	900,000
– Various services		140,000	2,050,000	
Utilization (FCFA)				
– Payment of services	30,148,946 58%	60,951,000 62%	2,449,620 40%	29,126,500 68%
– Retained by the centre	**21,594,694 42 %**	**37,439,000 38 %**	**3,620,186 60 %**	**13,968,065 32 %**

Source: African Centre for Higher Education Studies in Management (*Centre africain d'études supérieures en gestion/CESAG*) Survey, IIEP, 2001.

Main results of the survey[13]

- These training courses have had positive effects:
  - significant financial resources in certain establishments (up to seven times the budget allocated by the state);
  - more intensive use of costly pedagogical equipment;
  - young people without qualifications have received vocational education.

- These training courses have otherwise had bad effects:
  - in an effort to optimize the income, not only have the establishments sometimes overloaded the classes, but the pedagogical conditions are seen to be unfavourable, with results that are not always in line with the expectations of the trainees who have to pay for the training courses;
  - anarchic development of training without any planning, with the risk of competition between establishments;
  - competition with the regular programmes, within the same institution, especially when these training courses take place during the day, for pedagogical equipment and teachers who are made available for a free public service;
  - race for extra teaching hours, up to a total teaching load of 30 hours per week for some teachers, compared to 18 hours laid down in the regulations;
  - internal conflicts between the teachers, who want to receive as extra money most of the generated resources, and the management claiming that a part of the resources should be saved for the establishment, but which does not always manage the funds in a rational and transparent manner.

The absence of regulations with regard to the use of the resources generated by the institutions therefore raises serious problems. This situation is a source of conflict, as was illustrated by a strike by the teachers of the CFPT (just after the survey), who claimed an hourly rate of 5,000 CFA francs for extra hours. This rate does not allow the saving of resources for the establishment. However, the Ministry gave in and agreed the requested rate.

The regulation and monitoring of these income-generating programmes are thus indispensable in order to maintain their positive effects on the training institutions. If this does not take place, there is a risk that the already perceptible negative effects might increase.

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[13] The detailed results can be found in Soulat, 2001.

A law passed in 1961, still in force but fallen into abeyance, puts a ceiling on the complementary revenues of civil servants – doctors or teachers – to 30 per cent of their respective salaries. This rule could be taken into account in order to limit the maximum rates paid for extra teaching hours and to prevent the uncontrolled growth of fee-paying courses that could affect quality.

It is also to be noted that most of these resources are generated through duplicating, in the evening or even during the day, the vocational programmes designed for regular students. Job-related training produces only a small part of the generated income.

Let us note that these fee-paying training courses in public schools not only exist in Senegal but have also been in existence for a long time in other countries (Madagascar, Congo Brazzaville, for example).

(ii) The CRETFP of Togo and the resource centres

Mention was made above of the original form of dual training practised by the regional centres of TVE in Togo. Another interesting initiative relates to self-financing.

As a result of a declining economic context, the centres hardly receive any operating budget. Faced with this situation, the establishments find complementary income by renting out the use of machines that are not to be found locally and which are very useful for the enterprises, particularly the crafts and handicrafts sector.

In the case of the CRETFP in Atakpamé, these are machines which saw wood at a high rate of output, a machine to check the structure of the bodywork of a car or to check the balance of the wheels. Their use by the artisans themselves, previously shown how to manipulate them, has been very successful and brings in to the centre sufficient resources to make up for the deficient operating budget.

The ILO has tried for some time to encourage making the machines available within the support bases ('bases d'appui') provided for the artisans of Togo, Benin, Mali, etc. Their sustainability has not always been guaranteed. A public training institution which takes an interest in this approach can better provide skills and continuity.

The management of these resources is also interesting, it is done through a co-operative. Recognized by a decree, it involves the head teacher, artisans' representatives, parents and students. In May, 2001, the treasurer was an artisan, which constituted a sign of ownership of the initiative by the craft sector.

Co-management of this co-operative offers many advantages. It creates a lasting partnership between the school and local entrepreneurs, who in this way can take a direct interest in the activity of the training centre and help to make training better suited to the needs of the job market. It also allows the co-operative to become a resource centre for business activities, and hence for local development. Lastly, it ensures that these new resources will be managed in a transparent fashion and used flexibly in accordance with changing local requirements.

2. Curriculum and training issues

2.1 The contents of the training courses (curricula, occupational standards)

An important change is taking place in the countries being studied, represented by the replacement of the notion of programme by that of a system of reference. However, this is not always reflected in updated curricula. The French technical education system experienced the same situation in the 1970s, when the curricula were revised taking actual working conditions into account, and occupational standards were designed on the basis of a job-task analysis.

In French-speaking Africa, this approach is often supported by Canadian and Belgian aid (in Mali, particularly). Its implementation has the advantage of involving consultative meetings with employers and exposing the teachers to training/employment issues. Many of them are TVE graduates with no specific training to teach, and who, very often, have never had industrial experience. The training of trainers in the design of a system of reference is thus very useful for exposing them to industrial realities.

In spite of its relevance, this procedure cannot easily be translated into a reform of the curricula, the establishments being obliged to apply the existing programmes in order to prepare for the examinations.

Most of the existing curricula for the CAP and the BEP are French, sometimes quite old. On the contrary, the BT are more adapted to local conditions. They replace a large number of technical *Bacs,* in an effort to slow down access to higher education and to encourage graduates to search for employment.

At the same period, the vocational *Bacs* were created in France, made necessary by the vocational deficiency of the technical *Bacs*. The solution adopted consisted in the completion of the streams of CAP and the BEP, and in placing the new *Bacs* in the former Technical Education Colleges (CETs), now changed into vocational *lycées*. These new *Bacs* correspond to a highly-specialized form of training.

This was not the process which preceded the creation of the BT in French-speaking Africa. Their curricula were based on a revised version of those used for the technical *Bacs*, by reducing the hours in science and by increasing the hours spent in the workshop. The students thus received an inadequate vocational education without having had any former training in that field. Even though the school workshop sessions allow for the initiation into certain professional gestures, they do not correspond at all to work organization in industry or crafts, or to the initiatives or responsibility required in real working conditions. The employers are aware of this and denounce the low level of employability of BT graduates.

Recognizing this issue, Mali has rightly lengthened the preparation of the Technical Certificate (BT) to four years.

In *Madagascar*, another approach is used. The National Observatory for Employment and Training (ONEF), designs a qualifications framework by using a method applied by the French Centre of Studies and Research relating to Qualifications (*Centre d'études et de recherches sur les qualifications*/CEREQ), adapted to the Malagasy context. The Personnel Resource Centres (CERES) then have the responsibility of developing new curricula. However, the outcomes have not yet been applied in the field.

2.2 *Training pathways*

In all the countries studied, links have been created in order to allow best CAP graduates to prepare a BT. However, these are palliative measures that only partially compensate, for a small number of privileged students, for the discontinuity of the training routes. This is particularly prejudicial for the accumulation of vocational knowledge and for the ambition of students, unable to find its expression in a continuum, allowing each one to succeed according to his/her capacities.

In fact, in the various countries, these two levels of training (CAP, BT) are dispensed within different establishments (with the exception of the Centre for Advanced Training for the Trades in the Côte d'Ivoire). This fragmentation does not contribute to the consistency and the articulation of the TVE system. In Mali, the two most important initial vocational training centres, the CFP which delivers CAP, and the ECICA for the students at the end of basic education (DEF graduates), operate on the basis of different criteria.

The same issue is raised, with less intensity, about the articulation between the BT and the BTS. In fact, the BTS can compensate for the insufficiently vocationalized BT curricula. However, such option would jeopardize the already weak level of acknowledgement of the BTs on the labour market. The alternative would be to limit such option to a small number of very selective BTSs corresponding to precisely targeted labour market needs (see above).

2.3 *Trade association and training*

The participation of employers and their associations in the definition of the contents is based on the assumption that they will provide exploitable responses on skill needs and their distribution in the short and the long term. However, this is rarely the case in the small and average-sized enterprises due to lack of capacities to analyze and express their real needs.

In Senegal, the Professional Union of Industries and Mines (SPIDS), which includes 90 enterprises representing 80 per cent of the total turnover of enterprises in the country, has set up a unit for training matters with the support of the French co-operation. This innovation faces difficulties because of the absence of a training culture in the enterprises. Consequently, surveys are undertaken with difficulty.

Thus, even if the employers often denounce the deficiencies of the training supply, they are rarely capable of expressing their needs. It is therefore of no use expecting them to give easily interpreted responses.

It is interesting to note that in the countries where large programmes for the training of apprentices have been set up in partnership with the professional associations of artisans, the latter have helped in the formulation of needs and the organization of adequate training. In Mali, as a result of the support of the Swiss co-operation and of the ILO, six levels of competence for apprentices have been identified in collaboration with the craft Chambers of Bamako. This has resulted in developing training modules for each level. This greater facility in working with the artisan sector is acknowledged by the FAFPA, confronted on a daily basis with the supply and demand of training. Although a paradox, this situation in Mali is probably due to a more advanced structuring within the micro-enterprises sector as a result of the establishment of the National Federation of Artisans of Mali.

2.4 The validation

In initial vocational education, the examinations (for CAP and BT) are highly consistent with the curricula. Evaluation procedures involve tests which are conducted by the teachers of the corresponding subjects. However, as soon as the mode of training evolves, through continuing education or dual training, this consistency is reduced and the validation becomes questionable. Should one, for example, ask apprentices who have undertaken advanced courses, as in Togo, in the Regional Centres for Technical and Vocational Education (CRETFP), or students in dual training at the National Centre for Vocational Qualifications (CNQP), in Dakar, to sit for the CAP? The response given in both cases was negative and another more suitable diploma has been created. It is the Vocational Qualifications Certificate (*Certificat de qualification professionnelle*/ CQP), a national diploma in Togo, and delivered only by the CNQP in Senegal.

This choice has been motivated by the fact that dual training introduces modes of acquisition of knowledge and know-how that are very distinct from those used in schools. The distinction lies essentially in the three following points:

- dual training is not systematically based on programmes which are common to all candidates, but makes use of professional opportunities in order to develop individual skills;
- it involves company-based training where the behaviour of learners is particularly observed and evaluated;
- these individualized learning achievements are to be taken into account in relation to validation.

The answer to this question, however, is debatable, and some claim a unique system of validation, independent of the modalities of acquisition of skills, so that all may enjoy the same access to lifelong learning.

2.5 The training of trainers

It is very unequal according to the countries concerned. Some have established an *École normale* for TVE. This is the case in the Côte d'Ivoire with the National Pedagogical Institute for Technical and Vocational Education (IPNETP), which trains the majority of civil servant teachers in the Côte d'Ivoire and which receives a large contingent of student teachers from abroad. The IPNETP does not provide in-service training.

The mandate of the teachers' training colleges is sometimes badly defined. This is the case of the ENSET in Senegal, which has mainly trained teachers for technology (for the first four years of secondary school), which is not a major objective for TVE. This is also the case of ENSET in Gabon, which, in 1999, still maintained recruitment in the specialities that had too many teachers.

These inconsistencies are often linked to the fact that the *Écoles normales supérieures* are part of higher education and not of the TVE sector. They recruit and train according to the global flow of students and not on the basis of the needs of TVE establishments.

Generally, TVE uses many freelance teachers. In addition, young TVE graduates often start a career as a teacher without particular pedagogical training and, above all, without having followed training courses in enterprises, which is particularly prejudicial in the technical disciplines. Lastly, the level of qualifications of the trainers is sometimes insufficient. Thus, in Madagascar, only 27.5 per cent of the 734 civil servant teachers from the technical *lycées* have a level equal or superior to a *'Bac + 2'*.

It would seem that some of the most qualified teachers are attracted by better-remunerated employment in enterprises. It is, however, impossible to evaluate precisely the number of these departures. Initiatives like those of the Senegalese *lycées* or those of the UFAE in Mali constitute perhaps a way of retaining these teachers by offering them attractive supplements to their salary (see above).

In-service training for teachers is either limited or non-existent. Some initiatives were taken by the Malagasy CERES. It is however necessary to provide a supplement to compensate for the overly academic training of teachers and to enable them to meet professionals in enterprises. Organizing industrial attachment in their field of teaching would constitute one of the most appropriate responses to this problem.

The lack of skills of trainers of teachers certainly constitutes a serious obstacle in trying to complete the reforms being undertaken. A better professional standing for qualified and motivated teachers is necessary in order to guarantee an appropriate support of teaching teams and to enhance the reputation of the establishments.

3. Return to the French case

The changes that have just been described show that the TVE systems in French-speaking Africa have progressively turned away from the original model. In a differing economic and social context, TVE in France has also known some marked changes. The enhancement of vocational education and the growing importance of the private sector in the national training policy constitute two profound modifications. It is interesting to retrace the dynamics of this adaptation, in order to compare them with the changes taking place in French-speaking Africa.

3.1 The changes in the system as from the 1970s

The compulsory education up to the age of 16, decided upon in 1959, only became effective in 1968. The prolongation of studies brought about a massive increase in the number of Junior Secondary Schools (CES) and Technical Education Colleges (CET), a new name for the apprenticeship centres, where CAP and BEP were prepared.

The BEP, this 'new' diploma, the first session of which took place in 1968, had become necessary due to the prolongation of schooling and in response to the need to include more theoretical knowledge. Thus, the BEP was conceived in order to replace the CAP. This substitution did not take place because of the complementary nature of the two diplomas on the labour market. With the later creation of vocational *Bacs*, BEP often became a first step rather than a terminal course.

The implementation of these BEPs in Africa cannot yet be clearly justified. What is their role between the CAP and the BT within the framework of a stream from the CAP to the BTS?

France, with the massive increase of the school population as a consequence of the prolongation of the studies at different levels, found itself confronted as from 1975 with a rapid decline in the job supply. This new context led to successive measures to adjust the TVE system to the labour market, but many sources of inertia appeared (administrative, statutory, union, pedagogical, even cultural). This process of adjustment slowly led to the setting up of a permanent dialogue between the school system and the world of work. The Consultative Joint-Representation Commissions (*Commission paritaires consultatives*/CPC) constitute the main consultative and advisory body.

Twenty in number, the CPCs are made up of four colleges (employers, workers, government and resource persons). They deal with training that comes under the Ministry of Education as well as that of the Ministries of Labour and Agriculture. They have not always been able to reconcile diverging views, as expressed in the White Paper of the employers (CNPF), which, in 1993, still continued to denounce the inability of the education system to provide the skills needed by the enterprises.

It is possible to identify four main evolutions that have taken place over the past few years, which have remodelled the TVE sector in France:

- the prolongation of studies;
- the development of relations between school/enterprise;
- the renovation of apprenticeship and the development of alternance training;
- decentralization, leading to greater flexibility in management and planning.

3.2 Milestones in the French TVE system

Four important stages mark the recent history of TVE in France:

3.2.1 The laws on vocational training (1971)

Initially conceived in a spirit of lifelong education, these laws gradually became the foundation of vocational training, in a context of a depressed labour market. It is on this basis that the entire vocational training system is organized, including conditions of access for individuals and enterprises as well as the role of the state and of regions. These laws concern the rights to training, the financing principles and the market of training providers.

The state finances more than 50 per cent of vocational education, essentially for school-leavers, for the unemployed and for civil servants. The enterprises finance about 40 per cent for continuing education of workers. By law, employers must contribute at a minimum level of 1.5 per cent of their wage bill. In fact, the large enterprises often go over 5 per cent, but 80 per cent of the small and average-sized enterprises do not go over the legal minimum and many of them do not yet benefit from training. In partnership with the state, the enterprises finance individual study leave (0.2 per cent of the wage bill) and apprenticeship contracts, for qualifications and adaptation (to the level of 0.4 per cent). The Law on

Decentralization of 1993 conferred the responsibility for the latter on the regions.

These measures and the economic crisis led to the emergence of a specific field of vocational education with its own institutions: a junior Ministry, a national delegation for vocational training, a specific information and documentation service – 'The Inffo Centre', national and regional committees for vocational education, social promotion and employment, attached to the Ministry of Labour.

Within the Ministry of Education, these evolutions resulted in the creation of the GRETA. These networks of TVE institutions provide job-related training. This mechanism inspired the establishment of the UFAE in Mali (see above).

3.2.2 The creation of vocational baccalauréats (1986)

This decision is the most characteristic of the change in the relationship between education and the world of work. Based on the acknowledgement that the enterprises needed technicians (level 4), which the technical *Bacs* did not respond to, the Ministry designed a new diploma of which the modalities were for the most part innovative:

- open to CAP or BEP graduates, for a two-year programme, thus offering a continuation of study to those with vocational education diplomas;
- exposure to real working situations through dual training, on average, of two months per year in an enterprise;
- change of mode of certification through the introduction of tests during the training period, examinations being considered insufficient;
- substitution of the classical subject-based approach by an organization of content by learning fields integrating both general and vocational subjects.

The 'Vocational Education *Bacs*' were only finalized after studies had been undertaken on their relevance (tendencies of the labour market, flows of students, etc.) and after having been submitted to the Consultative Commissions (CPC, see below). Curricula and certification, including assessment procedures, are derived from occupational standards. This procedure is now systematically applied in France to vocational and technical education, including for BTS.

The creation of this new diploma has attained its objective of providing terminal vocational education: 80 per cent of graduates enter into professional life and 20 per cent continue their studies (by preparing a BTS), whilst these proportions are inverted for technical *Bacs* graduates. In France, this experience (including labour market studies, dialogue with the employers, dual training) remains a success story.

3.2.3 The laws on decentralization of vocational education and the renovation of apprenticeship

They constitute the outcome of 10 years of legislative evolution. The regions are thus responsible for vocational education of young people under the age of 26 years, and have at their disposal the financial means previously held by the state. They must propose regional training plans. Regional councils participate in the design and the construction of training centres for apprentices (CFA), which are becoming more and more numerous, and offer now training by apprenticeship going from the CAP (qualified worker) to the level of '*Bac* + 5' (engineer).

In this context, it is also worth mentioning the Complementary Training of Local Initiative (FCIL). The technical and vocational *lycées* can open, at their own level, in consultation with employers, one-year training courses that do not lead to diplomas but correspond to a specialized niche in the labour market. When such a niche remains and expands, the FCIL can become a specialization, certified by a national diploma. It is worth underlining that this French arrangement introduces flexibility in the normally very long procedures – taking several years – for the opening up of new training courses. As such, it corresponds to a market-friendly evolution of a system that is otherwise highly centralized. This type of arrangement could be relevant for French-speaking African countries.

The professional federations are involved with the regional councils to define the new dual training courses. Two forms of dual training exist that are both competitive and complementary:

- *Apprenticeship with a work status* provided in the Training Centres for Apprentices (CFA), with salaried teachers of a private status, the supervision being ensured by the representatives of the enterprises. Company-based training is relatively long and it is often conceived as an actual mode of integration into professional life.

- *Dual training with a school status* provided in the vocational *lycées* with civil servant teachers under the control of the Ministry; students spend less time in the enterprise, the training is 'diploma-focused'.

In 1999, there were 283,000 young people preparing CAP, BEP and vocational *Bacs* in CFA, and 696,000 preparing the same examinations in vocational *lycées*. At the same time, the number of contracts for industrial attachment increased rapidly: 400,000 contracts were signed in 1999.

This acknowledgement of the value of dual training concerns all levels of training. It is a real revolution for the French model of vocational education and it is very successful (260,000 apprentices in 1995, 360,000 in the year 2000).

3.2.4 The recent establishment of a junior Ministry for Vocational Education

This decision can be considered as the political expression in France of an acknowledgement of the specificity of vocational education within the education system. It comes about after a long period marked by important changes, particularly decentralization, that have to be made consistent at the national level. In fact, for initial vocational education, the expansion of training with a work status creates certain difficulties with regard to the streams proposed by the public vocational *lycées*. The Ministry considers, for example, remunerating the students of these *lycées* in order not to put them in a prejudicial position in relation to the apprentices in the enterprises, who receive a salary. Beyond such an option, obviously irrelevant in Africa, others are announced that are more general in their scope.

- Establishment of vocational pathways (no BEP without a Vocational *Bac* of the same speciality, nor a Vocational *Bac* without a corresponding BTS or DUT).
- Revision of the naming of the diplomas and the courses in accordance with the classification of occupations to increase the consistency and the lisibility of the skills provided to employers.
- Above all, a revision of the mandate and organization of TVE institutions. This concerns the future 'trade *lycées*' which should combine the various levels of initial training (vocational and technical) and continuing education within large trade areas, going from secondary to higher education. It is also envisaged to separate

the management of the *lycée* from the chair of the board to ensure accountability and involve an outside partner.

3.3 Modalities of design and actualization of the training together with the professional milieu

3.3.1 The Centre of Studies and Research relating to Qualifications (Le Centre d'études et de recherches sur les qualifications/CEREQ)

The importance gained by the CEREQ illustrates clearly the evolution of the French system regarding the relationship between training/employment. Created at the beginning of the 1970s, its mission is to carry out surveys and undertake studies to guide government and the social partners in the design and the implementation of TVE and HRD policies.

When it became an autonomous public body in 1985, it was placed under the double supervision of the Ministry of Education and the Ministry of Employment. It contributes to the evolutions of the TVE system by analyzing changes in occupations and the professional insertion of young people. Its work also covers issues such as certification, lifelong learning, and prospective studies. Due to its capacities, the CEREQ is an essential actor in the development of new TVE diplomas. It has a regional network which provides a capacity to analyze the local labour markets.

3.3.2 The regional Observatories of Employment/Training (OREF)

The OREFs, created in 1989, involve in each region the representatives of various decentralized public services concerned by the relationship between employment/training. Their role is, on the one hand, to consolidate all information on occupations, employment and training and to increase the efficiency of resources allocated for labour market analysis.

They do not constitute a new body for labour market analysis, but work through a network so that the information coming from the different services becomes complementary and thus throws a light on the manner in which the different TVE and labour market policies are articulated.

Certain professional branches have set up regional observatories for their own needs. Supported by the local enterprises of the sector, which are brought together within Regional Associations for Training (*Associations* *régionales de formation*/AREF), these mechanisms particularly analyze the skills required for present and future employment. They are thus, to some extent, similar to the ARIF of Madagascar. The observatories of the Construction and Public Works Sector are exemplary in this respect: they proceed by a comparison, by groups of trades, of the structure of the workforce, on the one hand, and the structure of the students in training, on the other hand; the gap being interpreted as a sign of discordance between employment-training.

The relationship between these two types of observatories (OREF and the professional branch Observatories) is meant to be reinforced within the present policy of decentralization, particularly within the framework of the regional plans for the development of training that have become compulsory.

3.3.3 The Professional Consultative Commissions (CPC)

As already mentioned, about 20 CPCs, corresponding to the larger sectors of economic activity, have been established by the Ministries of Education, Labour and Agriculture. They are made up of four colleges representing employers, workers, government and resource persons. The CEREQ is a legitimate member of all these CPCs.

In order to satisfy transversal needs that could not be addressed because of the division into professional branch, an Interprofessional Consultative Committee (CIC) has also been set up.

The creation of a new diploma takes place in five main phases:

- *checking relevance:* using employment trends analysis, this phase reviews the existing diplomas and the necessity to respond by a new diploma or by the reorganization of one or more of the existing ones;
- *finalizing the occupation system of reference*: this includes the identification of occupations that will be served by the new diploma; here, the role of the employers is primordial;
- *constructing the system of reference for the diplomas:* this involves developing the curricula; the role of the educators is primordial at this stage;
- *implementing the diploma* (the training of teachers, opening of sections, equipment, etc.);
- *monitoring* (admission rate, success rate, employment rate).

Chapter IV

The role of donor policies

1. Their evident interest

Donors have had and will preserve for a long time a key role in the evolution of TVE in the sub-region. They have not always only had positive effects, but their interventions can contribute to facilitating the social dialogue and inter-Ministry linkages which are otherwise blocked or difficult. Given the gap between the political commitments and actual implementation, donors support change by financing innovations. External aid brings in new experience and expertise to the TVE systems that have not, as yet, been able to mobilize all the economic and social resources of the society.

International organizations recommend an increase of donor support in TVE, that is considered as a priority along with basic education (CONFEMEN, Bamako, 1998). However, they also recommend the strengthening of public-sector institutional capacities (UNESCO Congress, Seoul, 1999), including in managing the system. The present weakness in planning and management is such that donors have almost a monopoly over innovations, which is a very disturbing trend for the future.

2. The various levels of intervention

It will take too long to enumerate the multiple reforms which have only been possible by external aid. However, two main fields of intervention emerge.

- The first relates to the institutional environment of TVE and is embodied in the projects or programmes often supported by the World Bank, sometimes in association with bilateral co-operation, as with France in Mali (FAFPA, UFAE). The ambitious GTZ project in the Côte d'Ivoire that aims at generalizing dual training also forms part of this category. Its exceptional length – 13 years – should be noted. Also to be noted is the innovative project of the French

Co-operation in Senegal, which aims at reinforcing the capacity of employers' organizations to take part in training policies.

- The second field of intervention concerns the establishment. Examples of this type of co-operation are present in Senegal with the CNQP (co-operation with the ILO); the CFPT and the CEDT benefit respectively from Japanese and Indian aid. They equip these centres and give advanced training to their trainers for industrial Technical *Bac* and BTS.

These two levels are respectively indispensable, but in order to be successful they must complement and be articulated with each other. Thus, the central level needs concrete examples of innovations in order to make the system as a whole evolve. Undertaking the necessary steps in a pragmatic manner – good practical cases are needed to convince – should lead to a focus of attention on innovative projects and militate in favour of a veritable status of experimental establishment.

3. The preparation of projects

Although it is indispensable at the present time, external aid should not affect national capacities in policy development which are absolutely necessary for the management of the reconstructed TVE system. Furthermore, donor interventions should be complementary. In this respect, project preparation is, without doubt, a key phase which is particularly delicate and decisive. The management of the PRODEC in Mali is an interesting example. Within the framework of TVE planning, PRODEC has undertaken skill-needs analysis at the regional level. It is on this basis that support was discussed with various co-operation agencies. Donors had the opportunity of consulting each other and proposing policy support according to their own priorities and resources.

The positive conjunction between World Bank and French support in Mali is the result of the simultaneous and co-ordinated negotiations they undertook together with each other and with the Malian authorities. In this process, the numerous direct contacts that the representative of the Bank and the French Cultural Adviser had during the preparatory phase were decisive.

In Togo, the creation of the Regional Centres for Technical and Vocational Education (CRETFP) owes much to a reciprocal exchange between the German and French Co-operations. A similar pattern has been established in neighbouring Benin.

4. The new approaches developed by the French assistance

After several decades of support essentially aimed at technical secondary education, the French assistance has progressively evolved towards strengthening training industry relationships. This change certainly reflects, in part, the evolutions of the French system, as mentioned above.

Certain recent projects give an idea of the change of priorities of the French assistance in the field of TVE:

- *Support for continuing education in Mali, in Burkina Faso and in Gabon.*
  These projects contribute to the setting up of units devoted to continuing education for the working population. Existing within various institutional settings, each having a different status according to the country concerned, they base their functioning on the principle established by the French GRETA: using the facilities of initial training (personnel, premises, equipment) to provide continuing education. The case of the UFAE in Mali has been more precisely analyzed above.
- *Support given to trade associations in Senegal and Benin.*
  In Senegal, the project concerned the 'training' unit of the Professional Union of Industries and Mines (SPID) and the implementation of a postgraduate programme on training policies at the African Centre for Higher Education Studies in Management (Centre africain d'études supérieures en gestion/CESAG).
- *Support given to apprenticeship in Togo and Benin.*
  Within the framework of an important reform of TVE, the former Technical Education Colleges (CET) in Togo, transformed into Regional Centres for Technical and Vocational Education (CRETFP), now accept apprentices and function in close relationship with the associations of artisans.
- *Support given to school/enterprise relationships in Senegal.*
  Development of dual training and experimenting labour market assistance programmes.
- *Support given towards the financing of vocational education in Mali.*
  France contributed to the implementation of the FAFPA, which was endowed with a credit from the IDA.

It is important to note at this stage that the evolution of French aid in the field of TVE depends more on an empirical process, often initiated at country level, than on a global strategy of intervention.

Conclusions and guidelines for donor support to the TVE sector in French-speaking sub-Saharan Africa

The profile of TVE in the four French-speaking countries studied reveals contrasting situations inasmuch as concerns the place of TVE in the education system, as well as its relations with the world of work. Above and beyond national specificity, the four countries often encounter difficulties of the same nature, especially when trying to balance supply and demand.

The origins of these difficulties reside probably, at least in part, in the common mould constituted by the French model in the 1960s. Today, whilst it has mostly disappeared in France, this birthmark is still highly visible in French-speaking Africa, and has been the cause of the introduction of a great deal of rigidity into the institutions, slowing down their capacity to meet the challenges inherent in their social and economic development.

The efforts which are undertaken, or are necessary, to make these systems evolve with regard to the further development of the relationship between training/employment, need highly targeted support, particularly at the local level, where the relationships between schools/enterprises are easier to promote. This readjustment can only come about if there is greater institutional flexibility so that it stimulates local initiative. As the support measures do not always reach the establishments, they run the risk of reinforcing the rigid structures or of creating new bureaucracies that are little able to infuse the TVE systems with dynamism.

The orientations proposed concern four areas of support:

- in the relationship between school/enterprise;
- in the content, the pathways and the diplomas, viewed from the angle of the qualifications required;
- in the establishment of the rules necessary to facilitate the development of innovations;
- in the support strategies that allow for the targeting of the levels of intervention that are most likely to be of help in making the system evolve.

These various elements have already been mentioned during the course of the report, which are resumed below.

1. The relationship between school/enterprise

1.1 Reinforcing the role of the establishments

The training/enterprise relationship makes sense at a local level. Today, the great majority of training centres do not have a unit in charge of relations with enterprises. Within the establishments, such a mechanism would have as a function the registering of data concerning the local enterprises, their activities, and, if possible, their needs. Targeted continuing-education activities, the organization of work-experience programmes, the provision of labour market assistance to graduates and, later on, their follow-up would also come under its responsibility.

Instructions at a national level should encourage the centres to establish such units. Whilst remaining modest (a room, a computer and a travel indemnity), such a mechanism, run by a teacher, could contribute to the collection of data on the local labour markets, information which it is often difficult for the observatories to obtain. Co-ordination and a follow-up at national level would ensure the mobilization of central services and of the observatories. The necessary financing could be obtained from the funds for the financing of training, where they exist, or by involving other sponsors. The importance of the information collected, which would increase the effectiveness of the local supply of training, would justify this type of support. This local approach to transition from school to work would contribute, furthermore, towards finding a palliative to the present deficiencies of the observatories.

1.2 The consolidation of apprenticeship

One of the most obvious deficiencies of the TVE systems in the French-speaking sub-Saharan African countries, is the fact that they ignore the informal sector, especially the artisans' micro-enterprises. Originally modelled on the school system, TVE has not taken into account traditional apprenticeship - in spite of the importance of this sector for the economy, as well as for employment - and the need to improve it.

This practice constitutes, however, an endogenous form of training, particularly adapted to the social and economic conditions of the countries of the region. Its limits reside to a large extent in the fact that the people in charge of training the apprentices are not capable of supplying the necessary complementary theoretical knowledge involved in the skills transmitted.

Largely stimulated by the Swiss and German co-operations, support for dual training is now fairly well acknowledged. Within this framework, the TVE establishments are called upon to participate in the complementary training of the apprentices. Other than Togo, which is well advanced in this field, various countries envisage it (Senegal), or are starting to undertake it (Benin).

It seems necessary to encourage this support for apprenticeship, but the public training centres and their trainers are not used to this new category of students. The apprentices cannot become pupils again. It would thus appear to be appropriate to use the experience of innovative NGO programmes as a form of inspiration (Swiss support in Mali, German support in Togo and Benin). Various flexible and experimental frameworks could be developed in this respect on the basis of a tripartite management of training, associating the state, the association of artisans and the NGO partners.

2. Pathways, contents and diplomas

2.1 Building new pathways

Starting with a model mainly containing technical secondary education, other types of training courses have progressively appeared as a result of pressure from the labour market. Initial vocational training courses, short-term technical higher education, and continuing education are now part of the TVE environment in the sub-Saharan countries. Traditional apprenticeship, which is still vigorous, can, furthermore, be added to these formal modalities.

In order to be effective, this panoply of varied yet disjointed forms of training should be organized into proper streams of training, integrating successive levels of study, going from the qualified worker to the advanced-level technician. This necessary rationalization would imply not only a revision of the central institutional organization and the way of financing, but would also necessitate a renovation of the establishments' mode of operation.

An approach per stream would permit, in a given trade area, the linking of all the levels of qualification by combining initial training and continuing education.

2.2 *Mobilizing resource persons for the design and actualization of the programmes and diplomas*

Mixed working groups (public/private), established per trade area and involving resource persons known for their professional skills, would be officially responsible for finalizing and experimenting new forms of training courses within the establishments where the corresponding specialities are to be found. The participation of trainers experienced in establishing partnerships with the enterprises, and the active involvement of the headteachers, would facilitate the implementation of new training courses, both initial and in the form of continuing education.

These same groups could formulate interesting recommendations on the harmonization of the various courses, the renovation of the contents of the programmes and the revision of the length of the training courses which lead to the various diplomas (Vocational Training Certificate (CAP), Technical *Bac*, Advanced Vocational Training Certificate (BTS)).

These groups, divided into consultative committees, could eventually be given the support of external expertise.

2.3 *Restoring the balance in the structure of the supply of training and the regulation of flows*

In certain countries, like Senegal, the image of the 'inverted pyramid' represented by the training courses clearly illustrates the excessive weight of higher education to the detriment of basic training (particularly, the Vocational Training Certificate (CAP)). Besides a national programming of the regulation of flows, a redistribution of means towards lower levels of training could benefit from increased institutions' responsibility. Within the framework of institution development projects, the teaching teams could study the local market's potential and design proposals in order to better respond to its needs.

2.4 *Deciding upon the future of technical education*

It is necessary to take an urgent decision on its future by defining a policy for short-term technical training at the higher education level (BTS-type). This should be done through consultations with the higher education sector to establish complementarity between the BTS and the University Diploma of Technology (DUT), in order to avoid the effects of competition or duplication.

3. The rules and regulations

3.1 Introducing an experimental status

Most innovations come up against rules and regulations which constitute brakes, even insurmountable obstacles. The experimental status would consist in provisionally giving all the necessary special dispensations to a training centre to implement, over the necessary period of time and under supervision, the experiments which are considered by the central level to be the most interesting. The effectiveness of such a measure presumes that a certain number of conditions be met:

- a regular self-evaluation of the experience taking place;
- a monitoring by the Ministry through an *ad hoc* committee, able to take decisions in view of sustaining the project and to ensure that periodic information is given to other establishments with a view to an eventual extension of the innovation.

3.2 Regulating income-generating activities

The Senegalese example shows that the commendable initiatives taken by the establishments in order to develop income-generating activities to complement insufficient operating budgets must be regulated. A rigorous monitoring would, in particular, allow for the evaluation of the size and the consequences of these services (training courses or productive work) for the establishment. Moreover, the precise verification of the allocation of the resources raised is a necessary condition for ensuring proper evaluation and transparency.

In order to be effective, this regulation should recommend that skill-needs analysis be undertaken before the opening of new fee-paying courses.

3.3 Making TVE institutions autonomous

A large body of opinion seems to be emerging in favour of a greater autonomy for the establishments, at a national level (10-year programmes) as well as international level (CONFEMEN in Bamako, Seoul Congress). However, no innovative proposal on this subject has taken place in the countries studied (with the exception of those authorizing complementary resources, as in the particular cases of Senegal and Togo).

Certain establishments that are well known for the quality of their training courses have long since had a particular status which confers upon them a greater autonomy (as in the CNQP in Dakar). Such well-recognized and established examples could serve as a model.

The necessary changes to the establishments' status would consist, in particular, in opening up their management to the partners on the labour market by creating multi-party boards. The accountancy framework that governs the operation of the establishments should also be revised so that it is adapted to the diversity of the services that they offer (initial training, job-related training, productive work). Such arrangements could be endowed with the experimental status mentioned above.

4. The support strategies

4.1 Strengthening employer associations' capacities with regard to training

Trade associations are in great need of assistance in order to improve their capacities in the field of training. Eventually, they will be called upon to collaborate with the training centres to define, together with them, the training to be adapted to the needs of the enterprises. However, whereas the professional organizations are increasingly solicited for information about employment, qualifications and training needs, they have not yet been prepared for such a contribution. Thus, the information that they can supply for the planning of TVE is often disappointing.

The implementation of an efficient partnership thus also needs to include a reinforcement of the capacity of the organizations. This should enable them to conduct surveys amongst their members from which they might be able to draw conclusions for useful proposals for the improvement of the supply of initial training and continuing education.

4.2 Developing the training of trainers

Trainers are, as a whole, insufficiently trained for the fulfilment of their respective tasks, often new to them, which are imposed upon them as a result of their contacts with enterprises. In addition to the consolidation of their technical skills for giving them a command over the knowledge related to the trades that they have to teach, it is henceforth necessary to give them skills in building up such relationships. The trainers must be prepared to go out of their school to meet the enterprises. They have not been trained in the teachers' training colleges, when they exist, to fulfil these assignments.

This type of training for the trainers could be linked to experiments in the involvement of enterprises in the definition of new programmes. The trainers would thus be asked to undertake training courses in an enterprise that is directly linked to the contents of the training they dispense.

4.3 Enlarging the role of skill development funds

These funds, principally aimed at continuing education, could finance studies/pilot development activities for increasing the effects of continuing education on initial training. As such, two themes would seem to be particularly interesting:

- the adaptation of initial training programmes, based on the knowledge acquired from workers and enterprises through the provision of job-related training;
- the organization of work-experience programmes and labour market assistance based on the contacts established with the enterprises within the framework of continuing education.

4.4 Establishing a synergy between the various support mechanisms for TVE

After some years of operation, the various support mechanisms sometimes present overlapping zones which damage overall effectiveness. Employment observation, curriculum development, training advice, the promotion and financing of continuing education constitute assignments which are often difficult to link. In addition, they (still?) have little effect at the level of the establishments.

A better co-ordination of these organisms, a shortening of the decision-making circuits and, above all, the granting of more responsibility to the training centres for the collection of data and the analysis of the local market are probably necessary in order to improve the efficiency of these mechanisms.

4.5 Improved co-ordination of donor support

The reinforcement of the management of the TVE systems necessitates a better co-ordination of donor support, including bilateral and multilateral aid. Experience has shown that when implemented, the global effectiveness of the aid increases. This is the case in Togo, where the German and French aids work within the common national framework of the Regional Centres for Technical and Vocational Education (CRETFP). In Mali, the prior agreement between the World Bank and the French assistance allowed for a good link to be created between the UFAE and the FAFPA. Still in Mali, the Swiss experience in the field of apprenticeship helped the French aid to intervene in this sector, of which it had little knowledge. This was facilitated by the good relationships established in connection with the FAFPA.

The search for the solutions best adapted to African realities reduces the tendency of donors to promote exogenous models and to support dispersed development activities that have no linkages. This concern for adaptation and interaction results in donor partnerships that it would be advisable to reinforce.

Part III

The transformation agenda in six English- and Portuguese-speaking countries

Introduction

Complementing the review of TVE in French-speaking sub-Saharan countries, this part considers training systems and policies in selected English-speaking and Portuguese-speaking countries. The analysis draws mainly on materials gathered in five country monographs covering Botswana, Eritrea, Ghana, Kenya and South Africa. Additional sources were used for other countries, namely Mauritius, Mozambique, Namibia, Tanzania and Zimbabwe, including contributions prepared by Ministry of Education officials for a training workshop organized by IIEP in Mozambique in April 2001. Although the focus remains on the five countries for which monographs were prepared, these additional sources are used at various places to complement the review of important issues and enlarge the scope of the analysis.

This part of the book therefore draws heavily on the analysis of literature, both monographs specifically prepared for the review, and other secondary sources. This methodology differs from the approach used for French-speaking Africa for which country monographs eventually played a minor role (Côte d'Ivoire, Madagascar) and were complemented by direct field investigation, either as part of this research (Mali, Senegal) or within the framework of other IIEP research activities on TVE (Benin, Togo). As a result, this part of the report is less empirically based and does not lead to specific directions for future donor support. The intention in this chapter is to capture and analyze the dynamics of TVE change in this other part of sub-Saharan Africa, larger and more diversified, including key innovations and strategies.

In the 1990s, most of the countries included in this review developed a new approach for the development and management of TVE relying more on market forces and partnership with employers. This shift is reflected at various levels of the system including governance and administration, delivery, financing, curriculum development, assessment and certification. While certain components of this reform agenda draw on heavily researched areas such as consultation and partnership mechanisms, dual forms of training, informal sector support, training levies to mention but a few – others although seldom challenged, are largely untested empirically. This results in some aspects of policy reforms being rather experimental.

This part of the book is structured as follows. The first chapter provides an overview of the TVE sector in the six targeted English-speaking and Portuguese-speaking countries (Botswana, Eritrea, Ghana, Kenya, Mozambique, South Africa). This review outlines the main features of national systems and conditions including organization and management, provision patterns and labour market profile.

The second chapter, devoted to innovations and challenges, is organized around four key areas of policy intervention, namely: organization and management, delivery, national qualification frameworks and financing. For each of these, main innovations and strategies are outlined and, when possible, first results discussed. While in the previous part of the report, extensive reference was made to France, here the focus will shift to TVE policies in Australia, Germany and the UK. Partial conclusions are provided for each topic, in a specific section summarizing the main lessons. In addition to those four 'classical' instruments of policy intervention, it was considered important, in the present context of sub-Saharan Africa, to include another dimension related to the implications of HIV/AIDS for TVE. This specific but major development refers mainly to the situation and the emerging responses in Southern Africa (Botswana, South Africa) where the threat and the loss are, at the moment, the most severe.

Finally, the conclusions provide a summary of the main lessons with particular emphasis on the innovative nature of this new African vocationalism.

Chapter I

An overview of TVE in six countries (Botswana, Eritrea, Ghana, Kenya, Mozambique, South Africa)

1. Botswana

1.1 Objectives and organization of the sector

One of the strengths of the education and training system in Botswana is the availability of a policy document to direct its activities. National Vision 2016 provides a long-term strategy within which education and training have a pivotal role: the Vision states that "Botswana in 2016 should be an educated, informed society" and, in achieving this, must "join the information age", "gear the education more to the job market", "set highest possible standards for vocational and technical training" and increase "the range of technical and vocational choices that are available to all people". In support of the national vision, the education sector receives the lion's share of the national budget, 29 per cent of the recurrent budget for the 2001/2002 financial year (Republic of Botswana, 2001) Although the emphasis in the past has been on general education, there is now a shift towards increased financial support for technical and vocational education and training.

The Revised National Policy on Education (Republic of Botswana, 1994) and the National Policy on Vocational Education and Training (Republic of Botswana, 1997a) guide the future direction of Technical and Vocational Education and Training (TVET) in more detail. Stated goals include (among others): increasing access to TVET, improving quality, building open career routes with access to further education and training, and introducing cost-sharing between beneficiaries. The policy also calls for better co-ordination and foresees the establishment of a national qualifications framework.

National Development Plan 8 (Republic of Botswana, 1997b) provides a six-year action plan and a commitment of development funds in support of the above policies. The commitment for TVET developments for the Plan period is over P 600 million and includes the construction of several new colleges, which will double the available training places; it also includes the development of new programmes to meet globally recognized standards, and a special project to upgrade the qualifications of lecturers in technical and vocational institutions. The country benefits from European Union support for several of these development activities.

The TVET system is a centralized one, meaning that the central government is the main provider of TVET. This is partly linked to the fact that technical and vocational education is still very young in this country (the first courses started in the mid-1960s and were based on foreign examinations) and also to the fact that the system is still very small in terms of numbers of institutions and enrolments.

While overall responsibility for Technical and Vocational Education and Training (TVET) falls under the Ministry of Education, there are other Ministries that have their own TVET institutions to train for their own needs. For instance, the Roads Training Centre is under the Ministry of Works, Transport and Communications; the Institute of Health Sciences falls under the Ministry of Health, while the Ministry of Labour and Home Affairs is responsible for the national apprenticeship scheme.

For all government-run and most government-assisted TVET institutions, the government is responsible for providing infrastructure and equipment. Teachers of government institutions are recruited and fully paid by government. The teachers in government-assisted semi-autonomous institutions, such as the brigades (see below), are recruited and employed by their boards of trustees.

At present, TVET in Botswana is provided by public, semi-autonomous and private providers offering programmes that vary in quality standards and recognition. To have a wide range of TVET providers without an overriding Human Resource Development Strategy, a co-ordinating body or a national qualifications framework, has resulted in fragmentation of the education and training system. The Revised National Policy on Education (1994) recommended the establishment of a Tertiary Education Council to co-ordinate the policy, planning, funding, management and standards in all tertiary-level institutions. It also recommended the establishment of a Botswana Training Authority to perform a similar function for employer-based training, to encourage and promote such training through a levy/grant system, and to introduce a national vocational qualifications framework. Through enactment, both the Tertiary Education Council and the Botswana Training Authority are now established, although it will still take some time before they will be operational and effective.

A third body is in the process of being established, the Botswana Examinations Council, to accredit general and vocational education qualifications. This Council, when operational, will thus improve the standardization of courses and the mobility of workers. However, this arrangement will not facilitate movement from a vocational training programme to an academic programme and vice versa. Universities and colleges remain reluctant to recognize work-based skills acquisition. This constraint was already pointed out in the National Policy on Vocational Education and Training, which states that "it is therefore recommended that a National Qualifications Framework and an appropriate mechanism for establishing equivalences should be developed". This is one of the main challenges to be addressed over the next few years (Nganunu, 2000).

The Ministry of Education plays a leading role in policy development and planning for the Human Resources Development Sector in the nation and, as such, is responsible for compiling the Education and Training chapter for the National Development Plans. The Department of Vocational Education and Training plays a similar role at the level of Technical and Vocational Education and Training. The private-sector involvement in training is on the increase and the NGOs have traditionally played a very substantial role.

1.2 Provision pattern

TVET in Botswana is still relatively young. The first formal training initiatives started around 1966. A Botswana Training Centre was set up with the support of a special Commonwealth Assistance Programme to train artisans and administrative staff for the Civil Service in preparation for the country's independence. The First National Development Plan (Republic of Botswana, 1976) noted that there were "47 young men undergoing training as carpenters, bricklayers, electricians and mechanics" in 1967. Both the Botswana Polytechnic (later incorporated into the university) and the Botswana Institute for Administration and Commerce grew out of this initial project. The first Botswana Brigade was also formed around this time as a community initiative in Serowe in central Botswana; the concept later spread across the country. The Botswana College of Agriculture opened in 1970 with 100 students. The University of Botswana was established in 1982 and the technical colleges were established around 1987.

Access to TVET has been, and still is, very limited and many young people are excluded due to lack of physical training places. The technical colleges typically receive 100 applications for each training place. The adult and working population are excluded due to lack of flexible learning opportunities. The range of programmes has, in the past, also limited opportunities for training. At the level of craft training, an apprenticeship programme based on the German model was the main form of training. A requirement for following the training programme was a contract with a sponsoring employer. The industrial base in Botswana is still very small and has not been able to support such a training model to any significant level. The apprenticeship scheme only absorbs 1.5 per cent of the school-leavers.

The views of the employers were that the programmes were not meeting the needs of industry. A recent evaluation of the apprenticeship programmes, commissioned by the Ministry of Labour and Home Affairs, recommended that the scheme be modernized and made more flexible to accommodate ongoing training for workers as technology and skills requirements change. The Revised National Policy on Education (1994) directed that new programmes be introduced to cater for the growing number of school-leavers to prepare for both formal employment and informal-sector activities. The policy states that government should cater for the initial broad-based training, while employers should provide the specialized skills training.

A long-standing problem has been the poor status of TVET as compared to academic education. This is a real problem in Botswana and many people who took the vocational route found themselves in a cul-de-sac with regard to progression. This problem can only be improved through higher financial investment in TVET, the development and delivery of programmes of higher quality, and by ensuring that such programmes open opportunities both for employment and further and higher education and training.

In Botswana, students enter the TVET system either after 10 years of basic education or 12 years of basic and general academic education. Those who join TVET after 10 years of education normally enter an artisan programme or a basic vocational programme (2nd-level TVET), while those entering after 12 years of education more often join a technician programme (3rd-level TVET). The Botswana Brigades, community training organizations (see below), used to enrol students with seven years of basic education, but have now increased the minimum entry qualification to 10 years following the government implementation of 10 years of open access to basic education.

Technical and Vocational Education and Training in Botswana is provided by the government, private institutions and parastatal organizations. *Table 1* lists 2nd- and 3rd-level institutions offering TVET, growth since 1994 and qualifications offered.

The technical colleges, government institutions formerly referred to as Vocational Training Centres (VTC), are the main providers of 2nd-level training. They offer both full-time and part-time technical and vocational courses and support apprenticeship programmes. The government also provides assistance to the community-based so-called Botswana Brigades. Currently there are 41 brigades and 6 technical colleges.

The schools for general education do not normally offer technical or vocational streams. However, the general school curriculum has been enhanced with subjects such as business, commerce, agriculture, home economics, design and technology, and computer awareness. One school offers electronics.

Table 1. Number of 2nd- and 3rd- level TVET institutions in 1994 and 2000 and qualifications offered

Type of institution	**Year 1994**	**Year 2000**	**Highest qualification**
2nd-level TVET			
Technical colleges (formerly called: Vocational Training Centres)	6	6	National Craft Certificate (Skilled Craftsmen); BTEP Foundation Certificate and BTEP Certificate
Brigades	32	41	Trade test certificates (semi-skilled craftsmen)
3rd-level TVET			
Botswana Polytechnic (1994)/ now (2000) part of University of Botswana as Faculty of Engineering and Technology**	1	1	Engineering degrees, diplomas and certificates
Botswana College of Agriculture	1	1	Degrees, diplomas and certificates
Botswana Institute for Administration and Commerce	1	1	Diplomas and certificates
Roads Training Centre	1	1	Diplomas and certificates
Institute of Health Sciences	1	6	Diplomas and certificates
Botswana Accountancy College		1	Accounting and computing certifications
Botswana Police College	0	1	Botswana Police Recruitment Course (Certificate)
Private schools			
Private vocational schools/profit-making schools (not included in national statistics)	70	120	Certificates and diplomas of varying level and degree of recognition, most courses of short duration; schools small and mainly commercial in nature

** *Note:* the above table does not include some other certificate/diploma courses offered by the University of Botswana, e.g. ICT diplomas.

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Technician training, 3rd-level TVET, is offered by the University of Botswana through the Faculty of Engineering and Technology (FET), the Botswana Institute of Administration and Commerce (BIAC), and the Botswana Accountancy College (BAC). FET offers engineering courses at technician, diploma and degree levels, while BIAC offers certificate and diploma courses in administration and commerce and BAC offers technician and professional programmes in accounts-related courses. Several government departments offer tailor-made courses to address their own specific needs, e.g. Roads Department, Ministry of Health, Police Department. A few private and parastatal organizations, such as banks, also offer their own specialized training.

Training provision includes both pre-service and in-service training, including on-the-job training in different vocational areas. Most courses are of periods of two to four years, but there is also provision for shorter courses ranging from a couple of weeks. The range of course provision, both in terms of the diversity of providers and the course lengths, makes enrolment statistics very unreliable. National statistics tend to focus on courses of nine months and more, while many of the colleges enrol an equal or larger number of students for shorter courses, in particular computer courses which are currently in very high demand.

The enrolment in TVET is still small and only about 12 per cent of the total school cohort finds a place in a TVET institution. Again, such figures are only indicative as many of the students in TVET institutions are not directly from school, but are adults returning to training institutions.

Table 2. 2nd and 3rd-level TVET institutions, total enrolment 1993 and 1998, by sex (course length nine months and above)

Type of institution	**1993 total enrolment**	**1993 female enrolment**	**1998 total enrolment**	**1998 female enrolment**
2nd-level TVET				
Technical colleges (formerly called: Vocational Training Centres)	3,994	1,408 (35%)	3,699	1,090 (29%)
Brigades	2,963	651 (22%)	4,022	1,072 (27%)
3rd-level TVET				
Botswana Polytechnic/ *now part of University of Botswana as Faculty of Engineering and Technology	634	88 (14%)	731*	69* (9%)
Botswana College of Agriculture	331	83 (25%)	n/a	n/a
Botswana Institute for Administration and Commerce	330	249 (75%)	575*	345* (60%)
Roads Training Centre	91	10 (11%)	82*	16* (20%)
Institute of Health Sciences	632	511 (81%)	1,358	988
Botswana Accountancy College	0	0	n/a	n/a
Police College	718	83 (11.5%)	404*	213* (52.7%)
Private schools				
Private vocational schools/ profit-making schools (not included in national statistics)	n/a	n/a	n/a	n/a
Total, excluding health	8,343	2,489 (30%)	9,513	2,805 (30%)
Total, including health	8,975	3,000 (33%)	10,871	3,793 (35%)

Source: Ministry of Education database, 2000 data.

Table 2 lists 2nd- and 3rd-level institutions offering TVET in 1993 and 1998, giving total enrolment and female enrolment.

Women are generally under-represented in TVET institutions. A large proportion of women have trained in computer courses, with none enrolling in heavy-plant courses. Popularity in the use of computers has resulted in typewriting courses being phased out.

Enrolment figures for the technical colleges include the industry-sponsored apprentices who attend for three months' theory, every year, during the three- or four-year duration of the training. The training leads to a National Craft Certificate. Enrolment in the scheme grew to a maximum of 600 new contracts per year, but later declined due to lack of support from industry. There are no reliable statistics on enrolments in private vocational schools. Most of them offer short courses.

To prepare for increased enrolments, the government has put several projects in place for the expansion of existing facilities and the construction of new ones as part of the current six-year plan, the National Development Plan 8. *Table 3* offers an overview of the planned increase in physical training places in technical colleges and brigades.

Table 3. Expansion of physical training places in technical colleges and brigades

Project	**Status**	**Number of new training places**	**Comment**
New Gaborone Technical College	Completed 2000	700	2nd level and (later also) 3rd level
Expansion of Auto Trades Technical College	Completed 2000	300	2nd level and (later also) 3rd level
4 smaller technical colleges for district location	In-detail design phase	1,000	2nd level: to address equity and access for young people in remote districts
Francistown Technical College	Construction to start early 2002	600	2nd level and (later also) 3rd level, EU supported
College of Applied Arts and Technology	In-detail design phase	700	3rd level, technician and diploma programmes
College of Technical and Vocational Education	Construction to start early 2002	300	Technical teacher training college, EU supported
Expansion of brigades, phase I	Completed 1999	1,000	2nd level
Expansion of brigades, phase II	In design phase	500	2nd level

Source: Ministry of Education database

The new Botswana Technical Education Programme (BTEP), which is being launched this year (2001) by the Ministry of Education, is college-based but includes both project work and a period of work attachment. It was developed and is being implemented with the support of industry, and includes a range of key-skills modules. Aimed at preparing youth for first employment, the BTEP will open doors for further and higher education, and provides a base for lifelong learning.

The BTEP courses have initially been developed at Foundation Certificate and Certificate levels (secondary level), but are now also being developed to Advanced Certificate and Diploma levels (third level). The Ministry of Education courses will cover areas critical to the economy and which are not covered by other Ministries or organizations. Some technical colleges, currently offering secondary-level programmes, are already equipped to take on third-level programmes. At the same time, a new institution specifically for training technicians and technologists is being constructed, referred to as a College of Applied Arts and Technology.

The issue of access to TVET is currently being addressed in a variety of ways. The government is doubling the number of physical training places through an intensive construction programme. But this measure will still not be enough to meet the economic and individual demand for training. A project is now being implemented for TVET institutions to be open and used throughout the day, evening, weekend and vacation time.

A second approach will be to determine what needs to be learned in a classroom or workshop and what could be learned by distance education. The provision of modular education and training provides new opportunities in this regard. The plan is to combine this development with the use of information and communications technology (ICT), i.e. distance education delivered through interactive electronic means, using multimedia and videoconferencing as well as CD-ROMs, through Internet and Intranet direct access or download. A joint Government of Botswana/European Union project is in place to pilot this approach at the College of Technical and Vocational Education, a technical teacher training college, to be located in Francistown, designed with electronically linked remote learning centres in four other locations across the country. The work on this project started last year with implementation in January 2004.

Box 1. The new Programmes in Information and Communications Technology in Botswana

The Communication Change: the term Education Data Network (EDN) was first used at Gaborone Technical College (GTC) in order to distinguish between internal network traffic on the GTC machines, and external network traffic primarily directed to other government servers, known as the Government Data Network (GDN). The use of the term EDN is now associated with the developments that are taking place to establish the education Wide Area Network (WAN) to be used across Botswana.

The current LAN configuration at GTC is the first of its kind in the country. Some of the main network features include the following:

- Registered domain as <www.gtc.ac.bw>
- E-mail and Internet access for ALL staff, students and administration
- E-mail can be collected from the local mail server using any computer on the network with a web browser – this means no client set-up for any new machines added on the network
- Internet access can be restricted to specific VLANs for optimum bandwidth utilization
- Fully equipped staff resource centre
- Complete switched network for faster data transfer
- Fibre optic data backbone to every switch stack

- Separate staff and student document servers
- 3 separate DMZs on the Firewall – File and mail servers, external web server, future expansion
- Intranet server

It is a huge leap from LAN to WAN, especially with a communications system that is not always as reliable as it should be. Added to this is the fact that a large majority of rural schools and centres do not have access to standard telephone communication, and so connectivity by conventional means is not possible. Botswana Television (BTV) is beginning to establish itself in Gaborone and has secured some bandwidth for satellite transmission of its television programmes. The satellite being used has a large footprint covering the whole of Botswana. The Government Computer Bureau (GCB) and the Ministry of Education (MOE) have secured a deal with BTV and the satellite company so that some of the excess bandwidth can be used for data transmission. This means that every educational establishment in Botswana will be able to access the EDN, and hence Internet and e-mail, from their LAN.

The physical and logical configuration of the EDN is a complex task. Some of the issues being worked out now, apart from financing, include:

- LANs sorted in all schools, colleges, centres
- Satellite receiver on each LAN
- Virtual Private Network (VPN) set-up for access to the GDN
- MOE taking control of domain registration for the academic sites in Botswana <www.establishment.ac.bw>

1.3 TVET and the labour market

Technical and Vocational Education and Training in Botswana is faced with the challenges of the relatively high level of unemployment, and the demand for a more flexible and skilled labour force at the national level.

Unlike many other sub-Saharan countries, traditionally Botswana's private sector has been its major employer, providing jobs in manufacturing, construction, wholesale/retail trade, real estate, agriculture, hotels and restaurants, mining and other areas of economic activity. Central government is the second major employer, with most of its employees engaged in the education sector. Employment growth in the private sector, recorded as 9.6 per cent for the 1998-1999 period, has been faster than that recorded for government employment (2.0 per cent for the same period)[1] (see *Table 4*).

Table 4. Annual growth in employment – private sector and government

	September 1998	**September 1999**
Private sector	+ 5.8 %	+ 9.6 %
Government	+ 8.4 %	+ 2.0 %
Total	+ 6.1 %	+ 6.4 %

Source: Statistics update – December 2000, Central Statistics Office, Quarter 4, 2000.

Preliminary estimates for formal-sector employment for September 2000 reveal that the country's economic sectors employed 262,386 persons, with 104,537 employed in central and local government.[2] Small, Medium and Micro Enterprises (SMMEs) accounted for 50 per cent of formal-sector employment in 1998, providing employment for approximately 125,000 persons.[3] While current data on SMME employment are not available, it is estimated that its contribution to the formal sector has increased significantly in the post-1998 period.

Employment in the formal sector experienced a slowdown in its growth in the year to September 2000. Employment growth was 2.1 per cent as compared to 6.4 per cent in the previous year (*Table 5*). The slowdown has been attributed to slower growth in the manufacturing, construction and transport sectors.[4]

Table 5. Annual growth in formal-sector employment

Period	**Increase in employment (%)**
September 1997–1998	6.1
September 1998–1999	6.4
September 1999–2000	2.1

Source: Botswana Institute for Development Policy Analysis Briefing, Fourth Quarter, 2000, p. 3.

[1] Statistics update – December 2000, Central Statistics Office, Quarter 4, 2000.

[2] Statistics update – December 2000, Central Statistics Office, Quarter 4, 2000.

[3] Policy on small, medium and micro enterprise in Botswana, Ministry of Commerce and Industry, December 1998, pp. 2-3.

[4] Botswana Institute for Development Policy Analysis Briefing, Third Quarter 2000, p.1 and Fourth Quarter, 2000, p. 3.

During the late 1990s, the country experienced a significant decline in the unemployment rate (see *Table 6*). While this situation was promising, the unemployment rate of 15.8 per cent in 2000 was considered to be still high for Botswana. It is to be noted that, in 1994, 41 per cent of the unemployed belonged to the 15-24 age group (Behtndt *et al.*, 1997).

Table 6. Rates of unemployment

Period	**Rate of unemployment (%)**
1995–1996	21.5
1998–1999	19.6
1999–2000	15.8

Source: Botswana Government Budget Speech, 2000, 2001.

The Mid-term Review of Botswana's National Development Plan (NDP 8) states that "the other reason for the relatively slower growth in unemployment is that the employment mix has become continuously more skill-intensive in both the private and government sectors. Each year, more skilled workers are required relative to unskilled workers. Lack of required skills, therefore, often explains why a significant proportion of the labour force remains unemployed" (Republic of Botswana, 2000b).

2. Eritrea

2.1 Objectives and organization of the sector

During the Italian colonization era, Technical Education and Vocational Training was almost non-existent. During the British administration enrolments increased because schools were built. At that time, arts and crafts trades such as weaving, pottery, leatherwork, metalwork, woodwork, forging etc. were introduced in the system.

At independence, in 1991, only two technical schools, providing formal technical training programmes, were functioning. Asmara Technical School, which was inherited from the past regime, was established and fully equipped in 1954 mainly by the Government of the USA at the end of the federal period. The standard of the school in terms of the equipment, buildings, teachers' competence, and curriculum had severely deteriorated during the war era. Wina Technical School, established in 1985 by the EPLF, was supplying trained manpower mainly for the economic activities of the organization and the then expanding small-scale industries in the liberated areas. The two 'historical' schools are currently providing training to produce middle-level skilled manpower mainly to the industrial economic sector of the nation.

The Department of Technical and Adult Education (DTAE) is one of the three departments of the MOE. All TVET, including Basic level, Intermediate level and Advanced level, are administered and managed by this department.

Within the framework of its decentralization policy, the government intends to transfer ownership and management of basic education and training to regions, so that communities are trained in basic life skills which they themselves identify. However, no concrete action has taken place in this regard. Transfer of responsibilities and, particularly, resources has not taken place to date.

Technical schools have no autonomy with regard to finance, recruiting teachers, curriculum, admission, certification, etc. All these are done by the MOE/DTAE.

Other than the MOE, sector Ministries and private enterprises provide the labour market with trained labour in various skills. The main problem is the gross inadequacy of data and information related to the type of training offered, number of trained people, duration and fund expended.

MOE has established a draft TVET Policy Framework which, among others, provides for the establishment of a 'TVET Board', whose members will all be stakeholders (including sector Ministries, private employers, labour unions, Confederation of Eritrean Employers, Chamber of Commerce, etc.). It is envisaged that it will deal with curriculum development, monitoring of skill requirement of the economy, give guidance and deliberate upon directives to be issued with regard to standardization, validation and accreditation of various skill training qualifications and, finally, in the financing of TVET. The Policy Framework states that full implementation will take some time mainly due to the need to build the requisite manpower and capacity in the MOE. Most importantly, it mentions that the private sector will play a central role in the design, management and financing of TVET.

In August 2000, the first workshop of the above stakeholders was held to sensitize on the Policy Framework and on the role and responsibilities of the 'Board'. A Technical Committee has been established to deal with the official approval of the draft policy, and to decide the 'umbrella Ministry' for the Board.

2.2 *Provision pattern*

Currently, the MOE is delivering TVET at three levels – basic, intermediate and advanced (see *Table 7* and *Chart I*).

(a) Basic level

The basic level is provided in Skill Development Centres (SDCs) and target trainees are school drop-outs, adults, including demobilized fighters, who have completed primary level of schooling. It is foreseen that this level will be managed by local administrations, with strong community participation. There are seven SDCs in the country, located in five of the six administrative regions.

(b) Intermediate level

The intake consists of Grade 9 completers of the senior secondary schools (or those who attended two years of senior secondary school). Due to high demand among students, only the best used to be admitted. Recently, however, the MOE has changed the admission policy and has started to admit average students from the second year of senior secondary schools. There are six intermediate-level TVET schools.

(c) Advanced level

This level recruits students who have not qualified for a degree programme following the School Leaving Certificate Examination. There are two advanced TVET institutes.

Table 7. Profile of TVET institutions

Name and level	Ownership	Year of establishment	Location
1. Basic level	MOE		
1.1 Mai Atal	MOE	1996	Northern Red Sea Region
1.2 Asmara comprehensive	MOE	1993	Maekel Region
1.3 Halai comprehensive	MOE	1993	Maekel Region
1.4 Mendefera comprehensive	MOE	1993	Debub Region
1.5 Asseb comprehensive	MOE	1993	Southern Red Sea Region
1.6 Maihabar	MOE	1993	Northern Red Sea Region
1.7 Haykota		1996	Gash Barka Region
2. Intermediate level			
2.1 Asmara Technical School	MOE	1954	Maekel Region
2.2 Wina Technical School	MOE	1984	Northern Red Sea Region
2.3 Maihabar Technical School	MOE	1997	Northern Red Sea Region
2.4 Donbosco Technical School	Private	1999	Debub Region
2.5 Hagaz School of Agriculture	Private	1999	Anseba Region
2.6 Bejuk School of Agriculture	MOE	1998	Anseba Region
3. Advanced level			
3.1 Asmara Business and Commerce	MOE	1997	Maekel Region
3.2 Pavoni Technical Institute	Private	1997	Maekel Region

Source: MOE.

Trades such as metal technology, machine technology, building construction, electricity, electronics, wood technology, drafting, surveying, computer courses, etc. are taught in the technical schools. Agricultural schools provide trades such as plant science, animal science, soil and water conservation, and horticulture.

The percentage of TVET students in the intermediate level amounts to less than 2 per cent as of 1998/1999. If only enrolment of Grade 10 and 11 students in the secondary level is considered, intermediate students in the TVET level account for 5.8 per cent. This shows that TVET in Eritrea is still at an early stage of development, despite the reportedly acute shortage of skills in various areas. Below, *Table 8* shows intermediate-level TVET enrolment for the years 1991/92 to 1999/2000.

Table 8. Intermediate-level TVET enrolment (1991/1992-1999/2000)

Academic Year	**ATS**		**WTS**		**MTS**		**ASA**		**ASM**		**HAS**		**BAS**		**DTS**		**Total**	
	F	**T**	**F**	**T**	**F**	**T**	**F**	**T**	**F**	**T**	**F**	**T**	**F**	**T**	**F**	**T**	**F**	**T**
1991/1992	46	425	18	112													64	537
1992/1993	45	423	12	111													57	534
1993/1994	50	472	12	111													62	583
1994/1995	40	428	13	118													53	546
1995/1996	44	399	15	136													59	535
1996/1997	55	408	15	136													70	544
1997/1998	69	406	7	69	7	88											83	563
1998/1999	95	474	16	180	26	185	13	38	11	28							161	905
1999/2000	92	488	16	181	29	322	21	70	25	76	10	53	16	96	6	43	215	1,329

Source: MOE database.

Key: ATS: Asmara Technical School
WTS: Wina Technical School
MTS: Maihabar Technical School
ASA: Asmara School of Arts
ASM: Asmara School of Music
HAS: Hagaz Agriculture School
BAS: Bejuk Agriculture School
DTS: Donbosco Technical School

Currently, all technical schools and institutes face shortages of local instructors. To alleviate this shortage, the MOE has recruited expatriate instructors from India and the Philippines, as well as foreign volunteers. Above 60 per cent of the teaching staff are expatriates.

Data on TVET graduates who successfully completed the third year of intermediate technical school exist for the years 1991 to 1999.

Table 9. Number of graduates of TVET schools and institutes (1991-1999)

Level	**Sex/Year**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**Total**
SDC (Basic)	Female				2	130	322	88	100	72	714
	Total				71	560	944	301	163*	208	2,247
Intermediate	Female	23	24	12	27	19	12	21	24	22	184
	Total	93	130	145	217	182	142	198	190	148	1,445
Advanced	Female							16	–	44	60
	Total							55	–	125	180
Total	Female	23	24	12	29	149	334	125	124	138	958
	Total	93	130	145	244	742	1,086	554	353	481	3,872

Source: MOE/DTAE database.

The number of graduates in the basic-level (SDC) programme fluctuated due to its non-formal nature. Thus, it increased from 71 in 1994 to 944 and reduced to 208 in 1999 (see *Table 9*). In 1998, although enrolment was 163, training was not completed due to the border conflict with Ethiopia. MOE sources also indicate that, as of 1999, a total of

4,500 adults have completed their training in SDCs, including in in-plant training in different industries.

Although funding is a major concern to further expand the system, there is no clear strategy for cutting costs. A cost-sharing pattern is to be developed when the 'TVET Board' is established.

Table 10 gives estimated annual total expenditure and per-trainee cost by school and level (1999).

Table 10. Estimated annual total expenditure and per-trainee cost by school and level (1999)

School/Institute	Total expenditure ('000 of Nfa)	Per capita expenditure
ATS	3,216	6,786
MHTS	2,613	14,122
WTS	2,136	11,802
ABCI	927	4,567
PTI	648	8,313

Source: DTAE/MOE database.

Note: Annual recurrent cost per trainee is calculated taking the total expenditure and dividing it by the number of trainees.

2.3 TVET and the labour market

At independence the Government of Eritrea inherited a completely shattered economic and social infrastructure, with about 70,000 displaced citizens, 100,000 war orphans, about half a million refugee citizens awaiting repatriation from neighbouring countries, and an equal number of ex-fighters awaiting demobilization and reintegration into society. In 1993, a Rehabilitation and Reconstruction Programme was launched. Since the border conflict with Ethiopia started in mid-1998, however, the economy, which was growing at 7-8 per cent annually, slumped to 3-4 per cent. A labour market survey conducted in May 2001 indicated that the border conflict has affected all productive and service sectors of the national economy, mainly due to shortage of manpower. The sectors most affected due to shortage of manpower are fishing and modern farming, while the trade, manufacturing and service sectors suffered largely due to market loss/decline.

The majority of the Eritrean labour force is engaged in agricultural activities, i.e. more than 70 per cent. It is estimated that the labour force in manufacturing represented, in 1998, 25,000 persons.

There is general lack of data and information on the situation of the labour market. The only source of information, although a little outdated, that could be relied upon as far as assessing the external efficiency of the current TVET system is concerned is the report on the Enterprise Survey and Tracer Study carried out in 1997 (Atchoarena and Teckie, 1997).

The findings of the enterprise survey recorded positive recruitment trends for the 1994-1996 period both for large enterprises (+116 per cent in 1995, +44 per cent in 1996) and for small businesses (+77 per cent in 1995, +47 per cent in 1996). In a period of labour market restructuring and employment growth, enterprises, especially large ones, were experiencing skilled labour shortages. Scarcity of qualified workforce was actually considered as the main limitation to development by large employers. Technical-school graduates represented a modest share of 3 per cent of the labour force employed by large enterprises and they were found in only 67 per cent of them.

The findings of the graduate survey suggested that technical schools achieved equipping students with the skills that would enable them to find jobs on the labour market, as reflected in the 90 per cent employment rate recorded for technical-school graduates. In addition, the results indicated that there was a fair match between training and current occupation for most of the technical-school graduates.

Overall satisfaction was also expressed by employers, who noted positively technical abilities of technical-school graduates. Enterprises employing technical school graduates, mainly large enterprises, also rated favourably willingness to learn, capacity of adaptation, problem-solving skills and commitment.

Findings also indicated that graduates' entry into the labour market was relatively easy. The time spent looking for the first job can be considered as short (seven weeks) and first working experience took place in most cases in occupations related to the training received.

However, it is important to note that technical-school graduates found employment mainly in the public sector (72 per cent), including 10 per cent in the armed forces. This must be related to the weight of the public sector in the economy, particularly in the largest productive units.

The situation of SDC graduates on the labour market was far less favourable. Survey results indicated a serious problem of unemployment, as reflected in the recorded 65 per cent unemployment rate. The presence of a significant share of disabled among SDC graduates (29 per cent) partly explained this situation. It can be seen as a reflection of the broader and sensitive issue of economic and social reintegration of vulnerable populations, including ex-combatants and returnees.

3. Ghana

3.1 Objectives and organization of the sector

Following many years of structural adjustment, Ghana has developed a perspective for its future embodied in Vision 2020, which aims at bringing the country to "the status and standard of living of a middle-income nation" by the year 2020. The human resources development forms a key part of this long-term development policy. Areas emphasized in the document include:

- universal basic education as well as increased access to secondary and tertiary education;
- enhanced technical proficiency and competence of the labour force through increased opportunities for technical and vocational training, including apprenticeship schemes;
- poverty reduction and increased average incomes as well as income-disparities reduction;
- reduction of infant and child mortality and general morbidity;
- improved food security and nutrition;
- increased access to health service, safe water and sanitation, adequate housing, and the effective control of the threat of HIV/AIDS and STDs.

TVET is not a recent concern in Ghana. The need to establish educational facilities for training artisans and technicians was already recognized during the pre-independence period, in the early 1950s. The document entitled 'Fundamental principles of education policy' recommended the provision of Trade Schools with "technical and literary education that will fit young men to become skilled craftsmen and useful citizens".

The outcome of this new philosophy of education, however meagre, was evident from the number of technical and related institutions that had been established by 1951. By this date, there were 23 technical and related institutions with a total enrolment of 3,330 students, or about 1.0 per cent of the total population of students in the country's second-cycle institutions.

Important reforms of the education system took place in 1987 and 1992. The integration of pre-vocational education with the general academic curriculum was part of the 1987 reform. This was advocated on the assumption that the products of basic education would use their pre-vocational knowledge to generate self-employment. This assumption has proved wrong for two main reasons:

- as a result of the poor and inadequate funding of these pre-vocational programmes, there was hardly any equipment and very little learning materials to ensure the acquisition of practical skills;
- the effect of the programmes has been to detract from valuable study-time that should have been devoted to the basic requirements of literacy, numeracy and writing which are fundamental for the acquisition of scientific and technological knowledge and understanding as well as sustainable improvements in TVET.

Before the reforms, post-middle school technical and vocational education was provided by Technical Institutes, Vocational Training Centres, Integrated Centres for Community Employable Skills (ICCES) and a number of privately run technical and vocational institutes. The great bulk of apprenticeship and artisan training in Ghana takes place in the informal sector; there are significant avenues for practical skills development in the informal sector.

Currently there are 156 government vocational training institutions run by nine different agencies throughout the country (see *Table 11*). There is also a fluctuating number of private institutions, currently estimated at a minimum of 250. The majority of people who are presently being trained in vocational skills are enrolled in the 20 Technical Institutes under the Ministry of Education, with a significant but smaller number in the 19 National Vocational Institutes (NVTIs) in the Ministry of Employment and Social Welfare. The Ministry of Agriculture funds and certifies agricultural training programmes offered by the institutions under its management.

In 1990, the government established the National Council for Technical and Vocational Education and Training (NACVET), which is jointly under the Ministry of Education and the Ministry of Employment and Social Welfare. This decision reflected an attempt to co-ordinate the activities of the various providers, including those directed towards the informal sector. The ICCES programmes in the informal public sector are co-ordinated by NACVET.

3.2 Provision

Pre-university education consists of six years of primary schooling, three years of Junior Secondary and three years of Senior Secondary. The standard duration of university education is four years. Primary schooling and Junior Secondary constitute the basic education for a minimum period of nine years to which all Ghanaian children are entitled by law. Pre-vocational education is integrated with the general academic curriculum at the basic level. At the secondary level, specialization is available in a number of TVET subjects. Technical institutes, farm institutions and vocational training institutes provide alternatives to the more academic curriculum at the Senior Secondary Schools (SSS). At the tertiary level there are eight polytechnics and five universities.

Most TVET students are trained in the Technical Institutes and the NVTIs, which run long-duration training courses lasting between three and five years. According to NACVET, courses are much too long, with too much attention paid to theory, and not nearly enough to appropriate practice. Many participants in the training actually leave after two years, as they do not feel that the additional time will give them additional marketable skills. The quality of instruction is variable, ranging from good to very poor, depending largely on the extent to which external aid agencies or religious institutions have been involved.

Many of the centres operated by NGOs are offering useful and innovative training. For example, the Opportunities Industrialization Centre (OIC) runs vocational training courses in three centres for youth between 16 and 20 years old. Training is offered in block making, carpentry, electricity, plumbing, secretarial skills, catering, textiles, ceramics, and graphic arts. The duration of training is from 12 to 15 months. OIC places emphasis on job counselling and placement, as well as on regular micro labour market surveys, in order to adjust training courses according to the labour market needs, especially in the informal sector. Due to this flexibility, the OIC is said to be successful in job placement of trainees (NACVET). Assistance is provided in obtaining suitable employment for graduates and as no fee is charged, the OIC programmes are very popular.

The National Youth Organization Commission operates four centres. The main objective of their courses is to train JSS school-leavers and drop-outs for productive employment in the informal sector.

The Department of Social Welfare has 10 training centres offering training for approximately 2,000 boys in carpentry, block making, welding, tailoring, crafts, and agriculture. There are also four training centres for girls, with a total intake of 300 trainees. The centres are largely understaffed and unequipped.

The Department of Community Development offers training for women in 15 institutions with a total capacity of about 1,000 trainees. The courses offered are in catering, dressmaking, hairdressing, childcare, primary health care, and home science and are of two years' duration. There are also four training centres for rural industries for male JSS leavers and drop-outs, offering a two-year course in farming combined with one non-farming skill. Again, these centres are understaffed, unequipped and ineffective.

The Ghana Regional Appropriate Technology Industrial Service (GRATIS) has started a training programme to assist the JSS leavers with some apprenticeship experience to be engaged in self-employment. At present it has two training centres, each for 20 students, in Tema and Tamale, with a plan to establish one centre per region in the near future. The training course of one-year's duration ends by assisting graduates in securing bank loans and purchasing equipment to set up their own business. The GRATIS centres also provide some training for master craftsmen in the informal sector. The training, though on a very small scale, is effective.

Currently there are two competing examination and certification systems in operation. Firstly, the GES Technical Institutes use localized City and Guilds examinations; while NVTI and much of the private sector use specially developed NVTI trade tests. Few small-scale and informal-sector employers pay any attention to the certificates a person has, but insist on seeing the competences and skills he can show. Ghana, like many other countries, will have to move away from formal examinations in the skill training area towards a process of continuous assessment of specific competences gained in and out of training institutions.

A significant development during the reform period is the localization of technical-subject syllabuses and examinations at technician and trade levels in the fields of construction, electrical and mechanical engineering. The City and Guilds of London Institute formerly determined the examinations and syllabuses. The costs of the localization were largely borne by the Overseas Development Agency (ODA) of the United Kingdom, currently known as the Department for International Development (DFID).

Table 11. TVET institution types and enrolment (1998/1999)

			Enrolment/Trainees		
Provider	**Type of institution**		**Male**	**Female**	**Total**
Ministry of Food and Agriculture	Farm institutes	3	190	11	201
	Agricultural colleges (July 1999)	5	612	90	702
Ministry of Education	Technical institutes (1998/1999)	22	12,379	2,305	14,684
	Polytechnics (1998/1999)	8	9,692	3,234	12,926
	Tertiary programmes		5,455	2,336	7,791
	Non-tertiary				
	Undergraduate teacher education	3	1,124	454	1,578
	UCEW		11	125	136
	UCC		20	0	20
	KNUST				
	Graduate teacher education	2	0	6	6
	UCC				
	KNUST		27	7	33
Ministry of Employment and Social Welfare	Rehabilitation centres	10	n/a	n/a	237
	Boys/Girls vocational training centres	8	151	246	397
	NVTI training centres (1999/2000)	25	4,402	2,201	6,603
	ICCES centres (1998/1999)	49	1,067	1,488	2,555
Ministry of Local Government and Community Development	Women's Training Institute (1998/1999)	18	0	1,807	1,807
	School of Hygiene	3	n/a	n/a	n/a
	School of Horticulture	1	n/a	n/a	n/a
	Vocational training centres	1	n/a	n/a	n/a
	Institute of Local Government Studies	1	n/a	n/a	n/a
Ministry of Youth and Sports	Youth leadership training centres	7	n/a	n/a	1,050
Ministry of Environment, Science and Technology	Intermediate Technology Transfer Unit (ITTU/GRATIS)	10	n/a	n/a	n/a
Ministry of Tourism	HOTCAT (short courses)				
	Hotel specialization	1	26	22	48
	Travel and tours		11	4	15
Office of the Head of Civil Service	Government Secretarial School	1			
	Technical supervisory training	5			
Religious bodies, NGOs and private-sector providers	Vocational training institutions	400	n/a	n/a	n/a

Note: n/a = not available.
Source: NACVET.

3.3 *Employment and the labour market*

TVET has always formed part of the Ghana education system. However, its impact on the labour market has been a concern for some time. Apart from problems of supply, the effectiveness of the sector is hampered by adverse labour market conditions.

According to recent labour market analysis (see *Table 12* below), the total number of jobs in the activities to which basic school-leavers might aspire is only twice as high as the annual number of school-leavers. A modern labour force attrition rate of 3 per cent per year and 5 per cent growth rate would provide only 30,000 jobs per year. The analysis concludes that even if all jobs were taken by JSS leavers, only about 15 per cent would find regular paid employment.

Thus it is only the agricultural sector and the rural and urban informal sector which have major potential for employment growth over the next few years. Therefore more attention should be devoted to training for the informal sector, particularly to achieve the poverty-reduction targets.

The percentage share of employment (1997) by public and private sectors reveals the relative importance of the private sector (93 per cent), including the informal sector, which constitutes the largest source of employment (89 per cent).

Table 12. Labour market figures (thousands)

Supply	**Male**	**Female**	**Total**
Labour force	4,312	4,488	8,800
Literate	2,686	1,634	4,320
Post-secondary education	104	18	122
Employment			
Public sector	226	59	285
Private sector:			
Formal private sector	(160)	(25)	(185)
Informal private sector	(1,615)	(1,610)	(3,225)
Total private sector	1,775	1,635	3,410
Total employment	2,001	1,697	3,695
By sector groupings:			
Agriculture, forestry, fishing	1,316	908	2,224
Mining, construction, manufacturing	207	92	299
Wholesale and retail trade	143	584	727
Transport, communications, utilities, financial, insurance, real estate, and service industries	388	184	572

Source: Derived from Labour Market Skills Newsletter, Ministry of Employment and Social Welfare, January 1999.

The supply of illiterate labour is plethoric (4.5 million), while the availability of relatively highly qualified persons (post-secondary level) is minimal (122,000). While open unemployment is about 4 per cent, a large volume of labour is underemployed (see *Table 13*).

Table 13. Distribution of the active population by status and gender

	Male (%)	**Female (%)**	**Total (%)**	**Persons (millions)**
Unemployed	4.7	3.2	3.9	0.3
Underemployed	45.9	57.5	52,2	4.6
	50.6	60.5	56.1	4.9
Total labour force			100.0	8.8
In full employment	49.4	39.5	43.9	3.9

Source: Derived from Labour Market Skills Newsletter, Ministry of Employment and Social Welfare, January 1999, and Core Welfare Indicators Questionnaire (CWIQ) Survey, 1997.

In this context, a major direction of the TVET policy agenda relates to small-enterprise promotion, self-employment and informal-sector skills upgrading. Another focus relates to the management and autonomy of training institutions to improve market responsiveness, including through the implementation of tracer studies, a monitoring mechanism currently quasi-absent from the sector.

4. Kenya

4.1 Objectives and organization

Over the past three decades, technical and vocational education and training in Kenya has experienced both structural and curricular changes that have in turn impacted on its graduates. TVET has also not been spared changes caused by the political, economic and social forces. In the early seventies, technical and vocational education was offered in separate secondary technical schools. Vocational training was mainly offered in vocational training centres and village polytechnics for primary-school leavers, while Harambee institutes of science and technology and the national polytechnics absorbed the secondary-school leavers.

The ILO report of 1972 identified the plight of rising unemployment among youth and the emergence of the informal (Jua Kali) sector in Kenya. In response to this revelation a National Review of Education was conducted in 1975 and its findings published in 1976 (Kenya, 1976). The above report recommended the strengthening of TVET and the vocationalization of the school curriculum. In 1981 a further review (Mackay Report, 1981) recommended the overhaul of the education system and the vocationalization of the curriculum.

In 1985, the changes were effected. The old 7-4-2-3 (primary, secondary, A level and university respectively) system of education was replaced by the 8-4-4 (primary, secondary and university) system. All technical secondary schools became technical training institutes offering a variety of artisan and craft programmes.

There were also administrative changes, where a new Ministry of Research, Technical Training and Applied Technology was established to cater for the TVET programmes. This affected policy where new structures were defined for progression in TVET. In November 1988, the National Industrial Training Council, in collaboration with the Ministry of Technical Training and Applied Technology, hosted a national seminar in Mombasa where the rationalization and harmonization of TVET programmes in the country were exhaustively discussed.

Some of the key recommendations that came out of this seminar included the following:

- government to give priority to the harmonization of TVET and to balance the training of technical manpower where the ratios of technicians, craftsmen and artisans should be around 1:10:30 respectively;
- TVET curricula outside the universities to be the sole responsibility of the Kenya Institute of Education, and examinations to be that of the Kenya National Examinations Council;
- flexibility and linkages to be established to allow TVET graduates to pursue higher education and training where possible;
- business and industry to be encouraged to participate more actively in TVET to promote industrial linkages and relevance in training;
- TVET teachers to be adequately trained and their terms of service to be improved to attract and retain them in TVET.

In 1998, the administration of TVET was further changed, when some of the TVET institutions were taken back to the Ministry of Education, Science and Technology, while others went to a new Ministry of Labour and Human Resource Development.

Due to the rising costs of TVET and the government's inability to meet such costs, other stakeholders have been invited to participate. Considerable costs have been passed on to the consumers (students and their sponsors) as well.

Technical and vocational education and training in Kenya is the responsibility of several government organs. TVET at primary- and

244

secondary-school level lies with the Ministry of Education, Science and Technology. National polytechnics and technical training institutes are also administered from the Ministry of Education, Science and Technology. However, institutes of technology, youth polytechnics and national industrial training centres fall under the Ministry of Labour and Human Resource Development.

Other Ministries including Agriculture, Communications, Water and Industry also have training institutions directly under their administration. There are a growing number of private institutions that offer TVET courses. Curricula and examinations are, however, centrally co-ordinated and administered through the Kenya Institute of Education and the National Examinations Council, respectively, to check on quality and standards. Some commercial and business courses are examined by the Kenya Accountants Secretaries National Examination Board (KASNEB), a reputable private organization. The Directorate of Industrial Training (DIT) is responsible for conducting and awarding trade test certificates.

More recently, universities have also started providing a variety of certificates and diploma programmes in TVET besides the degree programmes that are normally offered. They are responsible for developing their own curricula and setting the relevant examinations.

Currently, because of the inevitable confusion that arises with so many stakeholders in TVET without some co-ordination, there is a move to introduce legislation to empower the Commission for Higher Education to take on responsibility for co-ordination and accreditation of the post-secondary institutions.

4.2 Provision

Kenya's current development policy is aimed at achieving a newly industrialized status by the year 2020, as outlined in several public policy documents and, in particular, Sessional Paper No. 2 of 1996 (Republic of Kenya, 1996) and the National Development Plan 1997-2002. Critical to the attainment of this status is the availability of a well-educated and relevantly trained workforce. The aims of Technical and Vocational Education and Training (TVET) are outlined in the Master Plan on Education and Training 1997-2010 (Republic of Kenya, 1998, p. 114).

Prior to TVET, students are exposed to industrial subjects from the primary level, where children are offered art, art and crafts, home science, agriculture, business education and music classes.

At this level the intent is to create some occupational awareness in order to create a positive attitude towards work. It is not to train specialists, just as we should not be training linguists, mathematicians or scientists in other areas of learning. After primary school those who may not get an opportunity to proceed with secondary school can join a youth polytechnic and train as an artisan in a single skill trade.

At the secondary-school level the following subjects are offered: home science, art and design, agriculture, woodwork, metalwork, building construction, power mechanics, electricity, drawing and design, accounting, commerce, economics, typing with office practice, and aviation technology.

At this level, the students are given an opportunity to explore in the third year of study and if possible take some early specialization in an area of their liking in the fourth year before leaving secondary school. After graduation, students may proceed to train in their areas of choice in the polytechnics or institutes. Should they proceed to university, then their TVET subjects will be considered as an added advantage if they choose to pursue programmes in relevant occupations. *Table 14* shows enrolment trends by trade area, with growth from 1997 to 1999.

The TVET formal system comprises the following segments:

- About 650 youth polytechnics catering for over 40,000 students, most of whom are primary-school leavers. This is a single-level trade comprising two-year courses of various trades (e.g. carpentry, tailoring) structured mainly for primary-school leavers. The curriculum consists of 90 per cent practical component and the rest are support subjects.
- A total of 23 technical training institutes and 15 institutes of technology, with a total enrolment of about 13,000 students who are mainly secondary-school graduates. Artisan graduates may proceed to pursue craftsman courses. These are multi-skill courses that usually take three years to complete and consist of 80 per cent trade and 20 per cent support subjects. They are often offered in technical training institutes, institutes of technology, national youth service training institutes and other parastatal institutes.
- Four national polytechnics with a total enrolment of about 9,000 students taking various technician and diploma TVET courses. At post-secondary level, graduates of craft programmes and secondary-school leavers with the KSCE certificate may register for diploma courses in national polytechnics, institutes of technology and other government parastatal training institutions such as Utali

College, Kenya Water Training Institute and medical training colleges. Candidates with credit or distinction passes can now be admitted to relevant Bachelors degree programmes in technology or engineering in public universities from 2nd year level. Those with Higher diplomas enter at the 3rd year in a five-year technology/engineering programme.

- Several TVET institutions attached to government Ministries and departments offering a variety of TVET programmes tailored to the specific needs of the host departments. The National Youth Service Engineering Institute is one such institution, with a total enrolment of about 340 service men and women, offering engineering and secretarial courses.

Table 14. Enrolment trends by trade area

Year	**1997**	**1998**	**1999**	**Growth**
Building	1,070	2,200	2,734	+155%
Engineering	3,505	7,431	8,685	+148%
Business	3,202	6,470	7,458	+133%
Technical	1,959	4,319	5,621	+187%
Total	9,736	20,420	24,498	+152%

Building: construction, carpentry, plumbing;
Engineering: electricity, electronics, information technology, mechanical engineering, automotive, agriculture;
Business: business, secretarial trade, accounting;
Technical: laboratory, food technology, textile technology.
Source: GTZ and Government of Kenya. 1999. Vocational training project.

A number of students are also enrolled in TVET programmes in private institutions supported by churches, non-governmental organizations and individual proprietors. At the moment data from these types of institutions are difficult to obtain as there is no co-ordination in place.

It is to be noted that the informal sector-related delivery system has gained prominence. Many youth take up apprenticeships in the informal (Jua Kali) sector, where they work with experienced artisans and craftsmen before venturing into their own self-employment. It is estimated that the informal sector in Kenya absorbs around 70 per cent of the 500,000 new entrants into the labour force annually.

A review of examination results reveals that, except for the artisan courses which have achieved a high percentage pass, the craft courses have maintained an average pass mark for 1997 and 1999 but declined in 1998 (see *Table 15*). Performance in diploma courses has been alarmingly poor while that in the business and commercial courses is poor and has been on the decline.

Table 15. Success rates in percentages

	1997	**1998**	**1999**
All artisan courses	81.63	95.65	90.70
All craft courses	55.04	37.00	51.80
All Diploma courses	35.77	45.06	24.78
KATC and CPA	44.11	44.42	33.50

Source: Ministry of Education, Science and Technology, Republic of Kenya.

For several years, questions have been raised and criticism given on the quality and relevance of TVET programmes in relation to both local and national employment opportunities. Most institutions are financially constrained and the recipients have not readily been absorbed in employment. However, besides internal inefficiency, poor performance is also due to adverse labour market conditions, many businesses and industries having been closed down.

4.3 TVET and the labour market

The Kenyan economy has experienced a steady decline, reaching the lowest growth ever (0.3 per cent) since independence in 1963. This has precipitated high levels of inflation and unsustainable costs of production in major economic sectors, leading to the closure of several firms and small-scale enterprises, especially local ones.

As mentioned earlier, the informal sector has grown tremendously over the past two decades. It now accounts for about 70 per cent of Kenya's labour force.

Because of rising costs, TVET programmes are relatively more expensive to run and, as such, enrolments are consequently on the decline. TVET institutions have been unable to cope with technological changes in the workplace, thus risking producing graduates that are not well suited to industry. At present there is no appropriate tracking system to follow up on the TVET graduates in the workplace to determine their suitability.

Several stakeholders, including the Kenya Federation of Employers (KFE), Kenya Association of Manufacturers (KAM) and the Central Organization of Trade Unions (COTU) have expressed concern over the continued decline in the national economy and the loss of jobs in both the public and private sectors. They have called for the government's prioritization of investment in TVT, particularly the provision of entrepreneurship training to encourage self-employment and creation of jobs by the youth rather than their looking for salaried employment.

5. Mozambique

5.1 Objectives and organization

Following independence, the Frelimo made particular efforts to develop education. However, the civil war had devastating effects on the education sector. Since its end, in 1992, the government has made a strong commitment to increase access and participation in education. In a context of reconstruction and growth, the lack of skills is considered to constitute a serious constraint on the labour market. Therefore, besides the provision of UPE, the government is putting increasing emphasis on skills development.

Since the post-independence socialist era, the state has been the main provider of TVET. The sub-sector is managed by the Ministry of Education through the National Directorate of Technical Education (DINET). DINET controls a network of 32 institutions.

The network of public and private technical/vocational training institutions consists of 58 schools and institutes (32 managed by MINED, 16 by other Ministries, and 10 belonging to large public or private enterprises) and more than 100 training centres.

Besides the Ministry of Education, the Minstry of Labour (MINETRAB), through the National Institute of Labour and Vocational Training (INEFP), runs six vocational training centres.

There is no central mechanism in place to co-ordinate the overall training provision and the policy of the various actors involved. The Ministry is currently developing and discussing a Development Strategy for TVET, including a framework for co-ordination between the different Ministries concerned and with the social partners (Ministry of Education, 1999).

5.2 Provision pattern

In Mozambique, Technical and Vocational Education comprises three levels of training:

- The elementary level recruits fifth-class completers and it is aimed at vocational training in a profession and lasts for three years. It consists of the acquisition of limited abilities and knowledge as it is essentially practical.

- The basic level recruits seventh-class completers and lasts for three years (four years for evening classes). The training, at this level, consists of acquisition of theoretical and practical professional abilities and knowledge.
- The intermediate level recruits at the end of the tenth class and lasts for 3.5 years (four years for evening classes) or four years for agriculture. The training corresponds to technician level.

Funding has been a major problem in the institutions run by the Ministry of Education. As a result, infrastructures are in bad shape, including laboratories and workshops. This is true for all schools/ institutes, but five of them are supported by external donors.

Low qualification of teachers is also a concern. Out of the 1,200 teachers recorded in 1998/99, 24 per cent have university education. Furthermore, most of the teachers do not have company-based experience of the subject they teach. This makes training very theoretical, far from the realities of the world of work.

In addition to poor working conditions, low salaries do not contribute to maintaining motivation among teachers – a university graduate with more than 10 years' experience earns about US$250 per month – and the chances for upward mobility are very limited.

Outdated curricula, overspecialization of courses and lack of practical training also contribute to the poor efficiency and effectiveness of the system. To a large extent, the curricula were designed in the context of a centrally planned economy with a view to producing qualified workers and technicians for formal employment in large state-owned companies. However, a process of curricula reform has been initiated. In 1998, new courses were introduced at the intermediate level. The main changes were a reduction of the total number of subjects, while new ones such as computing and management were introduced, and an increase in the share of practical training.

The vocational training network of the Ministry of Labour provides short courses which generally last less than 10 months. They include:

- basic training: generally aimed at young first-time job seekers;
- in-service training: aimed at workers seeking to upgrade their skills and knowledge;

- retraining: aimed at workers who must change job, due to technological progress or enterprise restructuring.

The entry level for vocational training is variable. The courses do not lead to academic certification.

Average class size is typically 15 to17 trainees. The courses are structured in modules and put emphasis on practice. Many of the instructors come from companies. These features are quite different from the overcrowded, theory-driven, academic-oriented programmes run by the Ministry of Education.

Hence, most graduates from the schools and institutions managed by the Ministry of Education prefer to continue their studies rather than joining the labour force. This preference is also due to labour market conditions.

5.3 TVET and the labour market

Although still incomplete, the post-war transition conducted by Mozambique is generally considered impressive as reflected in rapid economic reconstruction and growth. While still among the poorest nations, by international standards, Mozambique has been in the 1990s one of the world's fastest growing economies. The country enjoys a relatively diversified economic structure, with many development potentials.

According to the 1997 population census, the economically active population stands at 5.87 million, about 81 per cent being employed in agriculture.

For long, Mozambique has been closely integrated with SADC countries, including South Africa. These ties are reflected in labour migration towards the large neighbour economy. In 1998 over 100,000 Mozambican workers were registered in the South Africa mining and agricultural sectors. In total, it is estimated that up to 1 million Mozambicans work, legally or illegally, in South Africa. This level of migration has far-reaching economic impact through remittances.

It is estimated that the annual rate of increase in the labour force is approximately 2.9 per cent, far exceeding the current growth rate of formal-sector employment. The majority of the active population is considered to be unemployed or underemployed. There are indications that approximately half of the working population depends on the informal sector for its subsistence.

During the first phase of the post-independence era, graduates were administratively allocated in companies and in public service institutions. The liberalization of the economy has introduced new rules which take time to be fully assimilated by the training system.

At present, the technical education system does not satisfy the needs of the labour market. While TVET institutions produce graduates with little labour market relevance, at a relatively high price (due to poor internal efficiency), in a context of rapid economic growth, enterprises experience skill shortages.

6. South Africa (post-apartheid SA)

6.1 Organization

The administration of technical and vocational training is principally divided between the Departments of Education and Labour, although in practice a number of other government departments in South Africa are also involved.

The Department of Education is responsible for developing and maintaining the education and training system of South Africa. It is responsible for setting norms and standards, and the nine provincial Departments of Education, each headed by a political member of the Provincial Executive Council (known as a Member of the Executive Council or MEC), are in charge of the actual delivery. This applies to general and further education, whilst higher education is deemed to be a national competency, meaning that the 36 higher education institutions in the country report directly to the national department and are allocated finances from the national department.

The Department of Labour is a national competency under the Constitution and hence has no political representation at provincial level, only administrative offices.

Skills Development is managed as a Programme within the Department of Labour, at Chief Director level (i.e. at a level below that indicated for the Department of Education). The Skills Development Programme comprises the six following components:

(a) National Skills Authority

The National Skills Authority is responsible for four areas of work: secretarial services to the stakeholder advisory body, the National Skills

Authority; legal services; establishment, support and management of the Sector Education and Training Authorities (SETAs); and marketing of the National Skills Development Strategy.

(b) Learnerships and Quality Assurance

This Directorate is responsible for overseeing the development of learnerships and short courses in partnership with the SETAs and supporting those SETAs that request assistance. It is also responsible for the formal registration of learnerships. It has, in addition, assisted SETAs to achieve accreditation as Quality Assurance Bodies under the South African Qualifications Authority.

(c) Skills Development Planning Unit

This Directorate is responsible for research and analysis of skills development needs in the country. It undertakes its work in partnership with the SETAs (that prepare Sector Skills Plans) as well as the provincial offices of the Department of Labour (that prepare Provincial Skills Plans). In respect of skills needs in the public sector, it works in partnership with the Department of Public Service and Administration, and in respect of future needs triggered by new innovations and technology, it works with the Department of Arts, Culture, Science and Technology. Alignment with industry and trade policy is effected through a partnership with the Department of Trade and Industry.

(d) Skills Development Funding

This Directorate is responsible for the management of disbursement from the National Skills Fund and also for the transfer of levy funds collected by the South African Revenue Service to the SETAs.

(e) Employment Services

This Directorate has principal responsibility for supporting and advising the 10 Provincial Department of Labour offices and their associated 125 labour centres. The services include funding skills development for social development projects and supporting retrenched workers.

(f) Assessment Services

This Directorate conducts direct assessments of apprentices under the apprenticeship system (although its functions are currently under review in the light of SAQA developments).

Besides the Departments of Education and Labour, other government branches are involved in training provision: the Department of Public Service and Administration, the Department of Trade and Industry, the Department of Arts, Culture, Science and Technology.

On 23 April 2001 the Ministers of Labour and Education jointly launched the country's first-ever Human Resources Development (HRD) Strategy (see below).

6.2 Provision

(a) Background

In order to be able to better understand the technical education system, it is necessary to first understand the basic architecture of the education and training system in the country (see *Table 16*).

Table 16. Education and training system

Schooling system	Grades equivalent to years in the schooling system	Technical college training system	University and technikon system
Foundation phase (primary)	Grade 1		
	Grade 2		
	Grade 3		
Intermediate phase (primary)	Grade 4		
	Grade 5		
	Grade 6		
Senior phase (1 year primary + 2 years secondary)	Grade 7		
	Grade 8		
	Grade 9		
Senior secondary	Grade 10	National Technical Certificate NTC 1	
	Grade 11	NTC 2	
	Grade 12	NTC 3	
(Post-school higher education and training)		NTC 4	(Year 1)
		NTC 5	Diploma (Year 3)
		NTC 6	Diploma (Year 3)
			Degree (Year 3)/ Bachelor of Technology
			Honours Degree and Professional Degree (Year 4)
			Masters Degree
			Doctorate

- Grade 12 culminates in a school-leaving certificate known as the matriculation certificate. This can be earned with or without university exemption. An exemption indicates that the subject mix and the aggregate pass level are deemed sufficient for entry into university. It is used as a first-round screening mechanism. Although, in the light of past discrimination suffered by black students in the 'bantu education' system, many universities are replacing this system with internal measures which seek to identify potential, rather than judge on past performance.
- The same entry requirements are not set for the technikons, which are institutions of career-oriented higher education training, providing, in the main, diplomas requiring significant periods of placement in the labour market before learners can qualify.
- Although formally at the same level as other certificates, National Technical Certificates are earned over a trimester and are not fully equivalent to a year's study in a school or higher education institution.

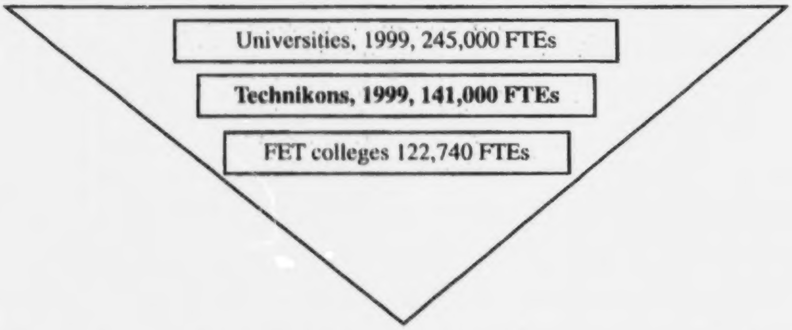
Albeit a little outdated, below is provided an overview of enrolments in the formal education and training system in South Africa, as at 1995 (see *Table 17*). The overview was developed for the National Commission on Higher Education as a backdrop to the development of new policy for higher education.

Table 17. Total head-count enrolments in education (1995)

Sector	**Total enrolments**	**% of sector**	**% of head-count**
Schools*			
Private schools	220,000	1.8	1.6
Public schools (primary)	8,521,900	69.4	63.5
Public schools (secondary)	3,483,700	28.4	26.0
Special schools	52,500	0.4	0.4
Schools subtotal	*12,278,100*	*100.0*	*91.5*
Further education*			
Technical colleges (N1 – N3)	125,735	45.7	0.9
Private colleges for secondary education	90,000	32.8	0.7
Private colleges (post-school programmes)	59,000	21.5	0.4
Further education subtotal	*274,735*	*100.0*	*2.0*
Higher education*			
Agricultural colleges	1,930	0.2	0
Technical colleges (N4 – N6)	52,320	6.2	0.4
Private colleges	147,645	17.0	1.1
Colleges of education	97,947	11.3	0.7
Colleges of nursing	9,783	1.1	0.1
Technikons	179,801	20.7	1.4
Universities	380,184	43.7	2.8
Higher education subtotal	*869,610*	*100.0*	*6.5*
ALL EDUCATION	13,422,445	–	100.0

Source: National Commission on Higher Education. 1996. *A framework for transformation, Pretoria*. Table 1, p 31.

In 1999, the universities had a total of 245,000 full-time equivalent (FTEs) learners, the technikons had 141,000 and technical colleges had 122,740 FTEs. This is referred to as the inverted triangle problem:


Universities, 1999, 245,000 FTEs
Technikons, 1999, 141,000 FTEs
FET colleges 122,740 FTEs

Source: Human Resources Development Strategy for South Africa – a nation at work for a better life for all (Republic of South Africa, 2001:30, figure 7).

A contributing constraint on throughput from school to further and higher education is the poor mathematics and science performance of schools. The problem has not only to do with the numbers who passed on the higher grades and who obtained university exemption. In general, mathematical and scientific literacy are extremely poor in the entire schooling system. Two internationally benchmarked assessment exercises have been recently undertaken on learner achievement in mathematics and science in Grades 4 and 8. The first, the Monitoring Learner Achievement (MLA) initiative that formed part of the UNESCO Education for All campaign, tested Grade 4 students in a number of African countries against a set of internationally defined numeracy and literacy learning competences. The average scores for countries participating in the MLA were as follows (see *Table 18*).

Table 18. Average literacy and numeracy scores of Grade 4 learners, MLA Initiative, 1999

Country	**Average literacy score (%)**	**Average numeracy score (%)**
Mauritius	61.0	58.5
Tunisia	77.9	60.4
Senegal	48.9	39.7
Malawi	35.0	43.0
South Africa	48.1	30.0
Zambia	43.0	36.0

Source: Human Resources Development Strategy for South Africa – a nation at work for a better life for all (Republic of South Africa, 2001:25, indicator 5).

Looked at from the perspective of young people between the ages of 16 and 34, the above has resulted in the following education profile (see *Table 19*).

Table 19. What is the highest level of education you have achieved?

Race	**None/primary %**	**Secondary %**	**Matric (12 years) %**	**Post-matric %**	**Total %**
African	19	55	21	6	100
Coloured	13	62	18	7	100
Indian	2	40	47	11	100
White	2	38	29	32	100
All	16	53	22	9	100

Source: Community Agency for Social Enquiry (CASE) (2001:16).

(b) The technical colleges sector

In 1998, of the 559,233 students that completed their schooling in 1997, a total of 122,740[5] full-time equivalent students enrolled at technical colleges (21.9 per cent). This needs to be compared to the 5,040[6] new apprenticeship contracts entered in 1998 (0.9 per cent of school-leavers). Clearly the majority of students were not engaged as apprentices.

The fields in which they were enrolled were:

	%
Art/music	1.2
Engineering sciences	36.7
Educare/social services	2.9
Business studies	49.6
General education	2.0
Utility industries	7.5

Source: Powell and Hall (2000:24).

Of all students, 44 per cent are female and 56 per cent are male[7] (see *Table 20*).

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[5] Powell and Hall (2000:24).

[6] Department of Labour. 2000. Annual Report, Table 2.13, p. 37.

[7] Powell and Hall (2000:41).

Table 20. Profile of students by vocational fields, including gender breakdown

Vocational fields	**Male** %	**Female** %	**Total** %
Art and music	44	56	100
Engineering sciences	87	13	100
Educare / social service	23	77	100
Business studies	34	66	100
General education	43	57	100
Utility industries	42	58	100

Source: Powell and Hall (2000:41).

Insofar as the level of these programmes is concerned, in 1998, "53.4 per cent of the total FTEs enrolled nationally were enrolled in programmes in the FET band (*equivalent to years 10, 11 and 12 in the schooling system)* and 46 per cent in programmes in the Post N3-level band (*beyond year 12 in the schooling system*)."[8] "In total the technical colleges contribute 9 per cent to post-year 12 provision, whilst universities contribute 54 per cent, technikons 30 per cent, colleges of education 5 per cent and other colleges 2 per cent" (Powell and Hall, 2000:28).

But, it is important to note that, "In the period since the statutory deracialization of apprenticeships (1981), and more recently with the rapid deracialization of technical colleges (since 1994)… 90 per cent of students are now black. Most study full-time with no employer sponsorship. Job placement rates after training are estimated to be at an average of about 15 per cent (Kraak and Hall, 1999:227).

There are 152 technical colleges in South Africa. In total the technical colleges have 232 delivery sites which consist of 152 main campus sites and 80 satellite sites. Technical colleges are widely distributed across the country and are located in most major towns.

The technical colleges have two histories - for whites and for blacks. White technical colleges were known as 'state-aided', whilst black colleges were called 'state colleges'. The governance and funding differences between the two are described below.

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[8] Powell and Hall (2000:29). Level descriptors relate to the National Qualifications Framework, which is explained in section 2.2. These proximate equivalents are provided to assist understanding at this point.

(c) State-aided colleges (historically white institutions) and state colleges (historically black institutions)

Of technical colleges 46 per cent are state-aided (historically white) and 54 per cent are state colleges. The formal distinction between these two types of colleges rests on differences in their governance and legal status, and on funding and staffing arrangements.

(i) Governance and legal status

The governance and legal status of state colleges differ from those of state-aided colleges. State colleges lack the status of a jurisitic person and their Councils have only advisory powers. Property rights vest in the state. State-aided colleges, on the other hand, are legal personae, and their Councils are fully constituted governing bodies, with proprietary capacity and the right to own property.

(ii) Enrolment

There was a total of 122,740 FTEs enrolled at technical colleges in 1998. From 1996–2000 there has been an 8 per cent per annum increase in the number of students. The enrolment patterns of students to learning areas are described above.

(iii) Pass rates and throughput rates

Pass rates and throughput rates of HDIs are significantly lower than the pass and throughput rates of HAIs (see *Table 21*).

Table 21. Pass rates and throughput rates

	Pass rates %	**Throughput rates** %
Historically disadvantaged institutions	51.6	46.6
Historically advantaged institutions	67.7	61.4

Source: Powell and Hall (2000:44, Tables 57 and 58).

(iv) Learners

The majority of learners are young (see *Table 22*).

Table 22. Age distribution of South African technical college learners

Less than 15	15-19	20-24	25-29	30-34	40+
0.1 %	34 %	40 %	19 %	8 %	0 %

Source: Powell and Hall (2000:21).

This profile suggests that there is little use of the facilities by people already in employment, which stands in strong contrast to the private colleges where most of the students are employed.

The formerly historically white institutions have markedly transformed themselves with respect to equitable student access, with 61 per cent of their students being African, 9 per cent coloured, 2 per cent Indian and only 29 per cent white. The racial profile of historically disadvantaged institutions is still predominantly black.

Of the students overall, 44 per cent are female and 56 per cent male. However, as is expected, this average conceals wide differences in subject choices (see *Table 23*).

Table 23. Gender profile of students by vocational fields

	Engineering %	Business studies %	Art and music %	Utility studies %	Social services %	Non-DNE
Male	87	34	44	42	23	43
Female	13	66	56	58	77	57

Source: Powell and Hall (2000:41).

(v) Problems

Many research and policy publications from the Department of Education speak of the problems faced by the technical colleges at the current time. However these problems are confirmed from independent sources as well:

Powell and Hall suggest "the provision of non-Department of Education (DOE) programmes[9] is one proxy indicator of the extent to which technical colleges are responding to new market opportunities, lifelong learning and new training needs. In 1998, 7 per cent of the total national FTEs were enrolled for non-DOE programmes." (Powell and Hall, 2000:23).

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[9] Non-DNE programmes are those programmes which do not follow national curricula determined by the National Department of Education, i.e. locally determined programmes.

In a recent study published by IDASA, an independent research agency principally funded by the private sector, Russel Andrew Wildeman (2001) provided the following observation: "technical colleges have been plagued by problems related to the relevance of programme offerings, output, management capacity, and the absence of reliable management information systems. It is not difficult to see why both public and private contributions have been slow in funding these institutions. These problems should however not obscure the key role that technical colleges could and should play in the government's human resources development strategy. The sustainability of funding for technical colleges is clearly related to its institutional and management problems".

In a 1998 study of technical colleges in the most industrialized province in South Africa, Gauteng, the authors (Fisher *et al.*, 1998:125) noted that "the colleges are in a 'catch-22 situation'. They aim to be responsive to industry, but are tied to the national curricula, which have not kept pace with industry." They continue "while some colleges do have links with their local Chambers of Commerce, this avenue has not been used effectively to strengthen links and partnerships. There is a gap between what is needed in communities and by business and the programmes actually offered by providers." The report goes on to give examples of notable exceptions where joint projects have been initiated and they found that "college facilities, particularly halls, are used fairly extensively by the community for social and sporting functions (karate and boxing) and for church gatherings." Evidence of more interesting linkages, such as the self-sustaining day-care centre at Dobsonville and the course-franchising activities at Carletonville to stimulate the development of computer skills of schoolchildren, is the exception.

Finally, it must be noted that much of the learning that currently takes place within higher education in South Africa is 'vocational' or career-oriented. The National Qualification Framework (see below) has made it possible to locate this learning on a single grid with that taking place in the technical colleges. However, it is true that there is currently very little progression of learners from the one kind of institution to the other, although the prospect of this is stronger now than in the past.

6.3 TVET and the labour market

In February 2000 Statistics South Africa (StatsSA) undertook its first Labour Force Survey (LFS). It subsequently produced a Discussion Paper to interpret the initial data. The figures from this study are used below, but it should be noted that the debate continues about certain definitions used and conclusions reached. However, it provides, for the first time, an overview of the formal and informal economy and hence is useful for the purposes of this monograph.

In South Africa, given the large number of discouraged workers, both official and expanded definitions of unemployment are widely used.[10] Unemployment, by the strict definition, is at 26.7 per cent and by the expanded definition is 35.5 per cent.[11] Below, these aggregate figures are broken down by urban and non-urban areas as well as by gender and race (*Tables 24* and *25*). *Table 24* uses the official definition and *Table 25* uses the expanded definition.

Table 24. Official unemployment rates amongst males and females living in urban and non-urban area. % by population group, February 2000

Gender, population group	**Urban male**	**Urban female**	**Non-urban male**	**Non-urban female**	**Total male**	**Total female**	**Total**
(a) All population groups	26.1	31.2	22.8	24.4	24.9	28.7	26.7
(b) African	34.2	40.2	24.6	25.1	30.0	33.2	31.6
(c) Coloured	22.6	22.9	5.9	13.7	19.5	21.4	20.4
(d) Indian	16.6	24.6	**	**	16.7	24.8	19.9
(e) White	6.2	7.3	**	**	5.9	7.9	6.8

Source: Statistics South Africa (2001:8, Table I).

Each percentage is a percentage of all people in that particular category.

** Number of responses were too few for this analysis.

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[10] Statistics South Africa uses the following definition of unemployment as its official definition. The unemployed are those people within the economically active population who: (a) did not work during the seven days prior to the interview, (b) want to work and are available to start work within a week of the interview, and (c) have taken active steps to look for work or to start some form of self-employment in the four weeks prior to the interview. The expanded unemployment rate excludes criterion (c). Definition provided page 9 of Discussion Paper 2.

[11] *Statistics South Africa* (2001:8, Tables I and J).

Table 25. Expanded unemployment rates amongst males and females living in urban and non-urban areas. % by population group, February 2000

Gender, population group	**Urban male**	**Urban female**	**Non-urban male**	**Non-urban female**	**Total male**	**Total female**	**Total**
(a) All population groups	31.0	39.3	33.3	39.3	31.9	39.3	35.5
(b) African	39.8	48.2	35.5	40.4	37.8	44.4	41.2
(c) Coloured	27.6	31.3	9.8	22.3	24.3	29.8	27.1
(d) Indian	19.0	37.8	**	**	19.1	38.0	27.3
(e) White	8.2	12.2	**	18.2	8.2	12.6	10.1

Source: Statistics South Africa (2001:8, Table 1).
Each percentage is a percentage of all people in that particular category.
** Number of responses were too few for this analysis.

These tables show that unemployment rates are higher in urban, as against non-urban, areas, highest among Africans and lowest among whites and it is higher among women than men.

Data released from the national October Household Surveys for 1995 and 1999 reflect significant employment shifts according to sector and occupation (Bhorat, 2001:3).

The first, most interesting feature of the data is the aggregated employment performance of the domestic economy. The data show that over the period 1995 to 1999, employment increased by 1.1 million workers, representing a 12 per cent increase over the five-year period. However between 1995 and 1999, the number of new entrants increased by about 3.1 million individuals. This has meant therefore that about 2 million individuals – some of whom were first-time entrants into the labour market – have been rendered or have remained jobless since 1995. Indeed jobs would need to have grown nearly three times faster, by 33.4 per cent, to maintain unemployment at 1995 levels. The study notes (Bhorat, 2001:6) that "Perhaps the most interesting trend in the data is the decline in employment in both community, social and personal services and in the utilities sector, irrespective of whether one uses the growth or the share of employment data. Both these are dominated by the public sector. Hence the data reflect a public sector that is in the process of significant restructuring. Ultimately then, the employment losses that occurred were predominantly in the public sector, with all other sectors, barring agriculture, reporting a rise in employment levels".

From the perspective of technical and vocational training it is important to note that although there is an increase in demand for traditional craft skills in the private sector, the growth in this demand has been significantly slower than that for technicians and professionals.

The picture is significantly different if one takes the public sector into account. Here the increase in demand for craft skills is slightly higher, and there is a net decrease in employment for technicians and professionals. Whether this signifies an actual decrease in demand or simply a decrease in employment, is a mute point. Certainly on the one hand there has been significant restructuring in the public sector, resulting in the job losses indicated above. However, there has also been a massive emigration of skilled workers, particularly public-sector professionals and para-professionals (nurses and teachers), from the country. In an article published in the South African Sunday Times newspaper, on 25 March 2001, the Central Bureau of Statistics is quoted as saying: “as many as 1.6 million people in skilled, professional and managerial professions have left the country since 1994, and at least one in every five South Africans with a tertiary education now lives abroad. The cost of this mass exodus is believed to be about R2.5 billion a year.”

Chapter II

Innovations and challenges

1. Organization and management patterns

1.1 Alternative patterns

In many countries in sub-Saharan Africa, the management of the technical and vocational education sector is shared between various government bodies. Traditionally, various Ministries, in addition to the Ministry of Education or Technical Education, control their own training institutions. In many countries, the Ministry of Labour is responsible for training within the framework of labour market policies. Such diversity often makes training delivery complex and leads to duplication of efforts, especially when training providers operate with little, or no, co-ordination. As far as delivery is concerned, the involvement of multiple partners including public-sector organizations, private training providers and firms does not permit mutual recognition of the credentials and therefore generates a segmentation of the training supply.

A number of options can be identified to co-ordinate the various stakeholders. They range between reliance on bureaucratic command, at one extreme, and the call to market forces, on the other. In earlier days of state planning, government used to allocate resources to vocational education and training according to public-sector objectives and priorities, with no or little involvement of the other partners. The failure of this old style of planning has led many African governments to seek partnership with labour market stakeholders with a view to bringing the supply of training closer to enterprise and labour market needs.

Such partnership aims principally at mobilizing collective effort to improve the effectiveness and the relevance of TVE. By involving the relevant stakeholders, including informal-sector representatives, it strives to make vocational training more responsive to the job. Partnership thus appears at first glance as a means of achieving a higher degree of efficiency in the use of public money.

It must also contribute to mobilizing outside resources in the form of expertise and private investment. In addition to this technical dimension, partnership also involves a political vision. The mobilization of key players, concerted effort, and dialogue are also considered as ways of regulating training resources democratically and through consensus. Partnership is not just concerned with initiative-taking and management, it is also a value system and a goal. In this respect, there is an evident connection in some countries between democratization and partnership in public policy (see, above, Mali and, below, South Africa).

From the research viewpoint, recent theoretical development influencing public policy tends to support a trend in favour of partnership. For example, institutional economics, rejecting both the orthodoxy of traditional planning and pure market mechanisms, seek to understand the motivation of economic agents in order to improve governance through participation and co-ordination. Sociologists dealing with organization theory draw similar conclusions in their analysis of collective action and the negotiating process conducted among key players. In the absence of clear proof that partnership is a source of efficiency, theory and policy-making thus tend to support the idea that it can make a significant contribution to policy reform.

Today it seems obvious that the state and the business community are natural partners. However, the structure of partnership often extends beyond employers. Other possible partners include trade unions, parent/teacher associations (PTAs), training-provider institutions, and NGOs.

The level of partnership often varies according to the area, whether initial or continuing education. As for continuing education, the participation of both employers and employees seems self-evident. This is recognized as a theme for social dialogue and collective negotiations at the national level, as well as at the industrial or corporate level.

The participation of social partners in the management and monitoring of technical education and initial vocational training is often less evident. In fact, their degree of involvement varies according to tradition and the structure of the technical and vocational education and training system.

Despite its rapid progress, the theme of partnership seems, at first sight, to have limited applicability to the least developed economies. However, the experience of countries such as Mali or Kenya, which are creating genuine co-operation between the state and representatives from the informal sector, has shown that the concept of partnership can be applied beyond the limits of the modern economy. In Mali, the dialogue launched between the National Federation of Malian Craftsmen and the public authorities allowed apprenticeship to be organized, and gave micro entrepreneurs access to training (see above). This example shows that under certain conditions partnership can express a principle of economic and social democracy which can apply to all sectors, without neglecting the most disadvantaged members of society. However, in the cases of Mali and Kenya, this trend is significant mainly for craft-sector training. The Ministry of Education remains the main body in charge of technical and vocational education. This is also the case for Mozambique and Eritrea, two countries which are still in the transition period from a socialist regime to a more open society and market-oriented economy.

Disappointed with an often long experience of rigid state-led regulation, an increasing number of SSA countries are trying to establish some sort of partnership between government and the private sector to govern training provision. Although partnership describes a mode of co-ordination, it covers in reality a great variety of arrangements. In the traditional tripartite model, partnership takes place at the central level, involving, besides the state, employers and trade unions in policy issues, but also in setting standards and monitoring training quality. Conversely, decentralized corporatist systems tend to rely on free negotiation between employers and trade unions at the sector or regional level, state intervention being kept to a minimum. National training authorities can be a form of tripartism, but they can also reflect corporatism or a type of state-led partnership. Indeed, a scale can be identified in co-ordination mechanisms, but also between training agencies.

The first degree of co-ordination consists in establishing committees or councils with only an advisory capacity. In spite of their value, such bodies do not radically change the situation unless they are given clear responsibilities in decision-making and control over resource allocation.

A more advanced form of co-ordination is reflected in the establishment of organizations entrusted with legal authority over resources and in policy formulation. The autonomy of those co-ordinating bodies is also an important element to preserve their pluralistic nature.

Therefore, the establishment of a national training agency, or authority, is seen in an increasing number of countries as a promising institutional formula to improve training co-ordination, escape some of the limitations faced by ministerial bureaucracies and forge an alliance between stakeholders.

In most cases National Training Agencies/Authorities are financed, fully or partly, through a training payroll levy imposed on firms. This funding formula is also directly derived from the Brazilian experience.

The payroll tax contributes to the autonomy of the Training Authority and decisions on the allocation of resources, taken in accordance with approved funding criteria, materialize the principle of partnership.

Besides co-ordination, which was often the prime motive, the search for labour market relevance and flexibility also strongly contributed to the expansion of the national training agency model. In reality there is not a model as such, but an institutional framework that inspired national responses. The sharing of responsibilities between the various stakeholders, the funding arrangements, the degree of centralization and the functions operated by the agency are the main variables differentiating national 'models'.

The literature on national training boards identifies their major functions as follows:

- achieving consensus on the broad aims of training;
- managing a payroll tax-based training fund;
- developing agreed standards and certification procedures;
- accrediting training institutions;
- analyzing labour market and occupational trends;
- undertaking and disseminating research on training issues;
- delivering training; and
- providing training-related services.

Structuring the relationship between the training system and employers, as well as unions, constitutes a major feature of national training authorities. For each institution the specific institutional arrangements reflect a different balance of power among the stakeholders. At present most countries try to expand the role of employers in training provision and financing. Advocates of an employer-led system have argued that enterprises are best placed not only to identify and even anticipate skill needs, but also to ensure that training content is up to date in a fast-changing technological environment. The performance of the German dual system (see *Box 1*) also supported the idea that employers' involvement in training is key to a smooth insertion of young people into the labour market. Finally, tightening budgetary constraints have further pushed towards passing more responsibilities to the private sector.

It must be noted that this trend has not reached continental francophone countries. However, anglophone countries and countries with a German heritage are very actively developing this system.

1.2 Botswana

In Botswana, the Ministry of Education still plays a leading role in the field of TVET. The management of the system is centralized, which is partly due to the small size of the sector. However, the private-sector involvement in training is on the increase and the NGOs have traditionally played a very substantial role. The Department of Vocational Education and Training of the Ministry of Education is the main provider for secondary-level TVET, while third-level TVET is shared among a number of government Ministries and the University of Botswana. The Ministry of Labour and Home Affairs is responsible for the delivery of apprenticeship and industrial training.

Recently, in a context of increasing diversity of training providers, the concern for better co-ordination of overall TVET provision led government to recommend the establishment of the Botswana Training Authority (BOTA) to regulate employer-based training, promote such training, and to introduce a national vocational qualification framework. If implemented, the Authority will be the responsible body to administer a levy/grant system. BOTA was set up as a semi-autonomous body that falls under the Ministry of Labour and Home Affairs. It is managed by a board of 20 members, about two-thirds of whom represent private-sector organizations. Similarly, a Tertiary Education Council was foreseen to co-ordinate the policy, planning, funding, management and standards in all tertiary-level institutions.

It is too early to draw the lessons of this policy option. Nevertheless, the introduction reflects the move from the traditional Ministry-based governance model to a new form of management closer to the labour market stakeholders.

1.3 Eritrea

In Eritrea also, the MOE has established a draft TVET Policy Framework, which, among other elements, provides for the establishment of a 'TVET Board', whose members will all be stakeholders (including sector Ministries, private employers, labour unions, Confederation of Eritrean Employers, Chamber of Commerce, etc.). It is envisaged that it will deal with curriculum development, monitoring of skill requirement of the economy, give guidance and deliberate upon directives to be issued with regard to standardization, validation and accreditation of various skill training qualifications, and, finally, in the financing of TVET. Implementation has not yet started.

1.4 Ghana

Under the present TVET system, several government Ministries, including the Ministry of Education, private organizations and agencies participate in the provision of technical and vocational education and training. Each sector Ministry or its agency has a legal mandate to make policies and execute them in the delivery of TVET. As a result there is, in reality, no unified national TVET system directed towards producing the numbers and types of people with competences required for productive activities in the various sectors of the economy.

With a view to redressing this situation by introducing some form of co-ordination, a first attempt was made to create a national co-ordinating mechanism. In 1990, the government established the National Council for Technical and Vocational Education and Training (NACVET), which is jointly under the Ministry of Education and the Ministry of Employment and Social Welfare. It was first established as a service unit, within the Ministry of Education, without legal status.

Accordingly, it is suggested that an inter-ministerial body, with the status of a sub-committee of Cabinet, shall be established directly under the Office of the President and will be called the National Commission on Occupational Education and Training.

Eventually it will be responsible for school accreditation, curriculum development, testing, statistics, and industrial relations. It will also be responsible for monitoring and evaluation, policy analysis, and for assessing the quality of training programmes.

The membership of the Commission shall include the Minister of Food and Agriculture, the Minister for Education, the Minister of Health, the Minister of Finance, the Minister of Employment and Social Welfare, the Minister of Environment, Science and Technology, the Minister for Local Government, the Minister for Youth and Sports and the Minister for Women's Affairs. A representative of each of the following organizations: Association of Ghana Industries, the Trade Union Congress, the Ghana Employers Association, a Member of the Council of Informal Sector Associations, a representative of the National Association of Private Vocational Training Institutes, a representative of PWDS and four renowned industrialists and business people, at least two of whom shall be women, shall be among the Commission members. The total membership of the Commission shall be 21.

Apart from policy-making and planning, the co-ordinating function of the Commission shall be discharged through the work of three semi-autonomous organs:

- a number of Industrial and Trade Advisory Boards (ITAB) drawn from employers, trade and professional groups;
- the Ghana National Qualification Authority, charged with the responsibility of defining the competences that shall be recognized as the standard output of the various levels of education and training in the national TVET system;
- the Training Quality Assurance Boards that will have responsibility for periodically evaluating the performance of TVET delivery agencies.

Although the concern expressed by Ghanaian authorities when establishing NACVET in 1990, to increase efficiency and improve co-ordination, seems legitimate, the results are still difficult to assess. The reform seems to suffer from slowness in the actual implementation.

1.5 Mauritius

The case of Mauritius illustrates a somewhat different approach to training provision and co-ordination. Prior to the establishment of a national training authority, training delivery in the country was dispersed between different Ministries and institutions, each operating its own policy and programmes without any genuine co-ordination. In this context large firms were relying mainly on the informal on-the-job training approach to impart skills to the workforce.

The need to introduce some sort of regulation in training provision started to be felt in the mid-1970s, the education system being unable to address the growing skills requirements of the emerging non-traditional industrial sector. With the economy moving towards full employment and the rise of skilled-manpower shortages, increasing attention was given to training issues by both government and employers.

A first attempt to introduce some sort of regulation was undertaken in 1981 with the establishment of the Central Training Office (CTO). The CTO was created to plan, co-ordinate and monitor training. In an effort to bring together the key actors, its managing board included a tripartite representation from government, the employers and trade unions. A major issue in the operation of the co-ordinating body was the sharing of responsibilities between the Ministry of Education and the Ministry for Employment. Following four years of inconclusive experience to achieve a satisfactory balance of power and distribution of responsibilities, this body was abolished in 1984 and no alternative was found until 1986. Between that date and 1988 the responsibility for the planning and co-ordination of training was taken over by the Ministry of Economic Planning and Development. It was in 1988 that, responding to private-sector pressures, government decided to establish a training agency, taking the form of a parastatal body, the Industrial and Vocational Training Board (IVTB). The IVTB is governed by a bipartite council including representatives from government and the private sector, and is placed under the responsibility of the Minister in charge of training. Today, the IVTB operates under the aegis of the Ministry of Training, Skills Development and Productivity.

By law the functions of the IVTB include policy advice, needs analysis, training provision, and regulation of training delivery. Over the years the institution has developed a comprehensive organizational structure covering complementary functions, monitoring, planning, financing, training delivery, curriculum development, certification and accreditation of training providers (institutions or individuals) and programmes. Training delivery is performed through the IVTB centres and aimed at school-leavers. This training system is financed through a training levy paid by all employers into a Fund administered by the IVTB. In addition, the Board operates a grant system providing an incentive for employers to train their workforce. Subject to the approval of the course by the IVTB this incentive combines a reimbursement, covering part of the training cost, and a rebate on the company tax. Therefore the IVTB was conceived as an instrument to provide pre-employment training to school-leavers, promote in-service training for workers and foster the establishment of a training market. Benefiting from a very favourable labour market situation, the Board did not have to cater for displaced workers.

In spite of the performance of the IVTB, ongoing changes in the economic environment require an adjustment of the Mauritian model. As a relatively small island economy, the country mainly relies on knowledge and skills to maintain its comparative advantage. Today, emerging difficulties in the labour market will call for a revision of the training policy. Vocational education and training must be able to play a greater role in supporting technological change and contributing to progress towards the emergence of a knowledge-based economy. Improving training quality, transforming employers' attitudes towards human resources development, tightening the overall coherence of the education and training system, are some of the challenges facing the IVTB.

In response to increasing concerns expressed by both employers and trade unions, consideration is presently being given to a new institutional pattern, clearly differentiating policy and management tasks from delivery (Government of the Republic of Mauritius, 2001). This would involve granting much more autonomy to the 11 training centres controlled by the Board. It would not, however, affect the nature of the IVTB as an autonomous body referring to the Ministry in charge of training and responsible for policy implementation.

1.6 Mozambique

In Mozambique the responsibility for co-ordinating the sector is shared between the Ministries of Education and Labour. It is to be noted that, in the past, Mozambique had a Secretariat of State for Technical and Professional Education (SETEP), that was the sole authority over TVET. Both the National Education Policy and the Education Sector Strategic Plan recommend a greater involvement of social partners in training issues. To that effect, the establishment of a sub-committee for training, under the Consultative Committee for Labour, was considered. More recently a study conducted by the Ministry of Education and DANIDA suggested the establishment of a National Training authority (Ministry of Education, 1999). Meanwhile, a National Training Council is foreseen under the auspices of the two concerned Ministries, but involving social partners. This tripartite body would play an advisory role for policy development, the executive responsibilities remaining with the Ministries of Education and Labour.

1.7 South Africa

As already described, the provision of TVET in South Africa is shared between the Departments of Education and Labour. Besides this common pattern, the complexity of the South Africa context results partly from the relationship between national and regional government. While national policy development is made at the central level, specific priorities and implementation are guided by provinces.

Another dimension that shapes the co-ordination and governance issue in South Africa is the establishment of a National Qualification

Framework. Reflecting a concern for overall policy consistency, the South African Qualification Authority Act[12] (SAQA Act) is a joint initiative of the Ministers of Education and Labour. The Act sets out to achieve the following objectives:

- to create an integrated national framework for learning achievements;
- to facilitate access to, and mobility and progression within education, training and career paths;
- to enhance the quality of education and training;
- to accelerate the redress of past unfair discrimination in education, training and employment opportunities;
- to contribute to the full personal development of each learner and the social and economic development of the nation at large.

The achievement of these objectives is the responsibility of the South African Qualification Authority, made up of a Board – consisting of representatives of all national education and training interests (including the Departments of Education and Labour, employer organizations, trade union federations and providers) – and an Office. The Board is responsible for overall policy advice to the Ministers, whilst the Office is responsible for the implementation of policy.

Implementation is essentially divided into two sets of activities. The first is the setting and registering of new standards for learning in the country into the National Qualification Framework (NQF); and the second, is ensuring that the standards set are quality assured.

The Ministers of Education and Labour have recently appointed a Review Team to investigate the efficiency and effectiveness of the systems and procedures adopted to implement the SAQA Act. It was due to commence its work in July 2001 and to report approximately six months later. The purpose of the Review is to strengthen the NQF.

The implementation of the NQF has been associated with the establishment of a number of other co-ordinating or consultative bodies, involving various stakeholders. Those institutional mechanisms will be reviewed when discussing the NQF concept and its implementation in SSA.

The Department of Labour, within the framework of its specific mandate, established in 1999 a National Skills Authority (NSA). The NSA is an advisory body to the Minister of Labour, consisting of five representatives each from organized labour, organized business, representatives of the community (women, youth, people with disabilities, and two others) and government. Four representatives from the providers are also members of the NSA. The South African Qualification Authority has one non-voting member, and employment service providers have two (one public and one private).

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[12] Detailed information on the South African Qualification Authority is available at www.saqa.org.za.

The core functions of the NSA include advice on:

- a national skills development policy;
- a national skills development strategy;
- guidelines on the implementation of the national skills development strategy;
- the allocation of subsidies from the National Skills Fund; and
- any regulations to be made.

To date, the NSA has advised the Minister on a number of regulations and has recommended the first National Skills Development Strategy, launched in February 2001.

At the economic-sector level, an additional form of partnership takes place through the Sector Education and Training Authorities (SETAs). On 20 March 2000, the Minister of Labour established 25 Sector Education and Training authorities. This was facilitated by the preparatory work commenced in July 1998, with the support of the German Technical Co-operation, under the authority of the then National Training Board (National Training Board, 1999).

Each SETA consists of a Board on which organized labour, organized business (including small business) and relevant government departments are represented (e.g. the Departments of Health and Welfare are strongly represented on the Health and Welfare SETA, and the Department of Education on the ETDP SETA).

The core functions of a SETA are outlined in the Skills Development Act[13] and they are to:

- develop a sector skills plan, each SETA is required to produce a five-year Sector Skills Plan, to be updated annually;[14]
- implement its sector skills plan by:

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[13] Skills Development Act, 1998, clause 10.

[14] All SSPs will be placed on the Department of Labour web site once approved by the Director General of Labour (expected date May 2001). http://www.labour.gov.za

  - establishing learnerships (see below),
  - approving workplace skills plans,
  - allocating grants,
  - monitoring education and training in the sector;
- promote learnerships by identifying workplaces for practical work experience, supporting the development of learning material, improving the facilitation of learning;
- enter and register learnership agreements;
- secure accreditation from SAQA as an Education and Training Quality Assurance (ETQA) for the sector;
- liaise with the National Skills Authority;
- liaise with the employment services of the Department of Labour.

In September 2000, all 25 SETAs submitted their first sector skills plans, and all but one were finally approved in May 2001.

1.8 Briefs on governance structures in other countries (Malawi, Tanzania, Zambia)

A number of other countries, including Malawi, Tanzania and Zambia, have also established co-ordinating bodies to improve the efficiency and relevance of training provision, as well as to ensure ownership by the business community.

Malawi established in 1999 the Technical, Entrepreneurial, Vocational Education and Training Authority (TEVETA). TEVETA is an autonomous body, connected to the Ministry of Labour and Vocational Training. Malawi also introduced a training levy that goes to the Skill Development Fund. Considering the size of the system – there are seven public TVET institutions – the issue of fragmentation, although mentioned in TEVET documents, may not be the only motive for establishing the authority. It could reflect a broader effort to reform public-sector management and institutions.

TEVETA plays an important role in the implementation of the DANIDA-supported TEVET policy aimed at granting large autonomy to training institutions. This reform started in September 2000 and is expected to be completed in September 2001.

Tanzania, established the Vocational and Training Authority (VETA) in 1994. It was conceived as an autonomous government body, decentralized through Regional VET Boards responsible for planning and delivery of training at the regional level. A training levy was also introduced.

As in the case of the IVTB, VETA combines three functions: policy implementation, financing and delivery. While this seems to have been a productive formula in the early period of IVTB, such a pattern raises a number of concerns in Tanzania. In particular, industry representatives perceive the system in place as benefiting mainly the VETA training centres, which capture most of the levy-related resources (see below) but serve mainly the crafts sector (Bennell, 1999).

Another concern relates to the governing body of VETA, which remains dominated by government representatives (8 out of 10). Unless employers are given more power in the decision-making process, training may not be properly adjusted to serve the skill needs of the business community. The experience of other countries has shown that balanced representation is critical to the success of national training agencies (Herschbach *et al.*, 1992).

In *Zambia*, the government, in 1998, passed a bill reforming the TVET system and establishing a Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA). Furthermore, the Department of Technical Education and Vocational Training (DTEVT) was merged into a newly established National Training Board which aims at better co-ordinating training provision. Large autonomy was granted to training institutions in order to improve their capacity to respond to local labour market needs, including in the informal sector (Fluitman and Alberts, in Gill *et al.* (ed), 2000).

1.9 Lessons

- Although all countries are not involved in this movement, there is a clear trend towards the establishment of national co-ordination and/or consultative bodies in English-speaking African countries. This movement is quite different from the pattern prevailing in French-speaking Africa, where the Ministry-based governance system remains in place, although new bodies such as Training funds and Observatories are emerging (e.g. Côte d'Ivoire, Madagascar, Mali, Togo).
- Often this institutional arrangement is linked to a financial reform involving the establishment of a training levy (Botswana, Malawi, Mauritius, South Africa, Tanzania, Zambia). Financing is obviously a strategic topic to involve employers and private providers in policy issues. However this option is not without problems, as illustrated in the case of Tanzania.

- To a large extent this development is related to a new thinking in public policy which advocates partnership as a key principle to increase efficiency and accountability in public management, ensure ownership of policies and improve relevance of delivery. The performance of this new paradigm in the field of TVET remains to be assessed, although it reflects a legitimate shift considering the specific labour market-linked nature of vocational training.
- Today the experiences conducted in the sub-region have produced inconclusive results. The rationale is certainly sound but outcomes are mixed. Mauritius, long considered as a model, is now experiencing difficulties and critics include members of the business community. The rise of unemployment on the island as well as the diversification of the supply of training are among the new challenges that the IVTB is facing. In Eritrea, the Ministry of Education (five technical schools, seven vocational training centres) has decided to set up a Training Board to co-ordinate training provision within the framework of the (re)construction of the system. Mozambique, another country in transition, is also considering establishing a National Training Board. In Botswana the Board is not yet operational. Information gathered for this report on Zambia and Malawi is limited but there are signs that the recently established Training Authorities do not perform according to plan. Ghana and South Africa have not adopted the common National Training Agency model. Both seem to experience implementation difficulties for different reasons. After 10 years of operation the impact of NACVET is yet to be fully felt. In South Africa, the specific political and social environment has fuelled a very complex process of transformation, putting a lot of value on partnership as a goal in itself. The new bodies that have been put in place to involve the stakeholders in TVET policies are still very young. It is therefore not possible to draw conclusions. However, the transformation agenda and the policy formulation achieved are in themselves impressive.
- The fact that countries with very different backgrounds and contexts are opting for similar options is striking. Training Boards should not become a 'one size fits all' response to the problems of public TVET systems in SSA. Past experience has shown that reforms need to pay attention to the implementing context. The difficulties encountered in some of the countries that have very recently adopted the Training Agency model, including the introduction of a levy, may be partly due to the fact that contextual elements, including the policy

environment and the economic context, were overlooked. "Just because a certain training alternative appears to be cost-effective does not mean that it can be successfully implemented in a particular country, or, indeed, that it will address a specific development need" (Herschbach *et al.*, 1992).

- Similarly, the success of any reform depends also on its complexity and on the relationship between complexity of design and implementing capacity. The relative slowness observed in the implementation of some of the interventions side of the South Africa reform agenda, may be due to a weak institutional implementing capacity compared to the high level of complexity of the reconstruction process. In the field of technical education, this could be illustrated by the gap between a relatively strong central level, in charge of policy development, and weak institutional capacities at the provincial level, responsible for actual implementation (McGrawth, 1998).
- In this area of training governance – but also for financing - sub-Saharan Africa could possibly benefit from the long and well-documented experience of Latin America and the Caribbean, where National Training Agencies were established in the 1960s and 1970s. This region showed that Training Boards established in small low-income countries have difficulties in achieving the degree of success of larger, more advanced economies.

2. Delivery patterns

2.1 Apprenticeship programmes

2.1.1 Apprenticeship schemes

As illustrated in the case of French-speaking countries, apprenticeship has long been in existence in many parts of Africa. Its merit in serving the skill needs of the crafts sector is today fully recognized. However, the extent to which governments consider that the TVET system has a role to play in expanding and consolidating skill development in the informal sector varies from country to country. The second Part of the report showed how, in French-speaking Africa, governments have long been reluctant to establish a bridge between public TVE institutions and the informal sector.

Beyond serving the needs of the micro-enterprises of the crafts industry, apprenticeship schemes, defined as the combination of school-based and company-based training, managed through partnership, can also be seen as a way to transform a rigid, inward-looking, public TVE system. In many French-speaking countries, this avenue has not yet been much explored. Yet, in most places around the world, getting businesses to commit themselves to training young people represents a key challenge. In fact, employers are increasingly considered to be the best placed to provide the right kind of training, and also to teach the values and attitudes applicable to working life.

Expanding apprenticeship schemes proved to be difficult in periods of crisis or economic uncertainty. However, it is often when an economic downturn forces businesses to cut costs and downsize, that government wants to saddle them with extended responsibilities, especially for helping young people to fit into the job market.

Apprenticeship models vary greatly from one country to another. The extent of government intervention in regulating the system and in financing apprenticeship is among the key variables that differentiate national models.

Besides its demand-driven nature, apprenticeship seduces governments due to its 'state friendly' financing pattern. Traditionally, apprenticeship is a type of on-the-job training. The apprentice, in return for the training received, contributes to the production. This two-way relationship provides the basis for the apprenticeship contract and for the surrounding financial arrangements.

As a form of training, apprenticeship can be analyzed within the framework of the human capital theory. The training entails a cost which includes the time spent by the master and other employees supervising the apprentice. At the beginning of the training period the apprentice's productivity is the marginal product of an unskilled worker. During the training period the apprentice's productivity rises gradually.

According to the human capital theory, workers should pay for their training if they receive transferable skills. Investment in general training should be made by the apprentices because the returns to such training can benefit other firms.

Similarly, employers should pay the cost if the skills delivered are specific. The more specific the training, the greater the probability that the apprentice will continue working for the firm after training is completed.

Sharing the training investment, so that workers and firms bear some of the costs and capture some of the benefits, avoids inefficient separation decisions by both parties. Through cost-sharing the investment, an apprentice would accept a wage that is lower than marginal productivity during training and receive a share of the returns to this investment thereafter, reflected in an increasing earning profile.

Under a pay-as-you-go framework, apprentices pay the full amount of their training cost through deductions from wages during the training period. In a low labour-cost environment, the net training cost is usually covered by the apprentice's work. Only then, does apprenticeship become a profitable activity for the employer. Financing decisions also affect training duration. Employer financing requires that apprentices stay on after training is completed. In some countries, this situation is reflected in the relatively long apprenticeship contract signed in some cases (e.g. Benin).

Improving traditional apprenticeship, through introducing school-based components, and establishing or expanding modern forms of apprenticeship in view of serving the needs of larger enterprises, requires some sort of state intervention, as previously illustrated in the cases of Côte d'Ivoire, Mali or Togo. Contrary to the situation in French-speaking African countries, several English-speaking countries have a relatively well-established tradition of institution-based, pre-employment apprenticeship training. For them the issue is not so much how to establish such training facilities, but how they should be adapted to better respond to the changing needs of the labour market, including in the informal sector, and/or to deep social transformations (South Africa).

The purpose of this section is not to discuss informal-sector training issues but to review recent initiatives taken to expand and modernize apprenticeship schemes delivered by the TVET system.

2.1.2 Botswana[15]

The Ministry of Labour and Home Affairs is responsible for the delivery of apprenticeship. For a long time, at the level of craft training, an apprenticeship programme based on the German model was the main form of training. A requirement for following the training programme was a contract with a sponsoring employer.

The industrial base in Botswana is still very small and has not been able to support such a training model to any significant level. The apprenticeship scheme only absorbs 1.5 per cent of the school-leavers. Furthermore, the views of the employers were that the programmes were not meeting the needs of industry. A recent evaluation of the apprenticeship programmes, commissioned by the Ministry of Labour and Home Affairs, recommended that the scheme be modernized and made more flexible to accommodate ongoing training for workers as technology and skills requirements change.

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[15] Adapted from the country monograph.

The Revised National Policy on Education (1994) directed that new programmes be introduced to cater for the growing number of school-leavers to prepare for both formal employment and informal-sector activities. The policy states that government should cater for the initial broad-based training, while the employers should provide the specialized skills training.

As a result, the National Apprenticeship Scheme is central in providing skilled artisans. In the past, apprentices' training was conducted within limited and rigidly standardized trade courses. Commerce and industry, responsible for the practical training in this system, voiced concern about their inability to train apprentices according to the standards. This resulted in the establishment of programmes that give candidates full-time, pre-service education with more practical exercises at the colleges, but also with a much wider scope in the chosen vocational area. Hence, while the larger portion of apprentices' training takes place in industry, the institution-based component is provided by technical colleges under the Ministry of Education and one company-based Vocational Training Centre (VTC). In this framework, technical colleges have been offering two-year full-time courses to cover the first two years of the apprenticeship scheme. This arrangement is being phased out to give way for the new Botswana Technical Education Programme (BTEP) which is flexible, modularized and competence-based, with a range of courses from foundation to diploma level (see above).

For both the apprenticeship schemes, former and present, and the Botswana Technical Education Programme (BTEP), employers have always been involved with the course programmes, although this partnership produced unequal results. The contents of the programmes are drawn up in close co-operation with commerce and industry, which are represented in Programme Advisory Committees (PAC). In line with the National Policy on Vocational Education and Training (NAPVET, 1997), the new Apprenticeship is also considering courses that give the candidates more flexibility in their learning.

2.1.3 Ghana[16]

Ghana features a relatively well-established, non-formal apprenticeship system. Non-formal apprenticeship is also generally known as the informal or traditional system of training, which takes place in artisan workshops owned by master craftsmen/women. It is estimated that nearly 90 per cent of all basic skill training in Ghana comes from this traditional/informal system.

Characteristics of the apprenticeship include the following:

- it has no clear organizational structure;
- it caters for the majority of TVET recipients, including illiterate and semi-literate;
- there is a close link between training and real production;
- there is no formal curriculum, what is taught depends on what is actually produced;
- skill training, customer service, and work attitudes are integrated;
- standards vary;
- there are no common competency-assessment procedures;
- until recent interventions it had no link with the formal education system;
- it serves mainly rural populations and the urban poor;
- no one single government Ministry has responsibility for it;
- there is no tradition of government support, control or supervision; the burden of training falls on parents and apprentices.

Informal apprenticeship is well developed in such trades as carpentry, masonry, auto-mechanics welding, foundry, photography, tailoring, dressmaking and cosmetology. Operators in the sector exhibit creativity but lack the necessary technological knowledge related to their skills and the capital to expand these enterprises.

In recent years, the government has designed and implemented different types of short training programmes to support the informal sector. This experience eventually led to the design of a 'Vocational skills and informal-sector support project' with the World Bank.

A pilot programme, implemented under IDA's First and Second Transport Rehabilitation Project, provided short-term training for master mechanics (6 weeks) and apprentices (12 weeks) at Kumasi Technical Institute. A competency-based learning approach was used throughout the programme. This method made it possible to teach both literate and illiterate in the same classroom. A key element of the training programme were the incentives provided through allowances given to the instructors, master craftsmen, and even apprentices attending the programme. The institute was also supplied with training equipment, while small tool kits were given to the participants at the end of the training. Later this programme was expanded to Accra Technical Training Centre and Ho Polytechnic.

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[16] Adapted from the country monograph.

An additional two-week component covering management and entrepreneurship for master craftsmen was run by the Management, Development and Productivity Institute (MDPI).

The innovative nature of the programme was due to the following elements:

- it was the first training programme in Ghana that was designed and implemented with the full involvement of a trade association (the Ghana Association of Garages);
- it was entirely competency-based; and
- it trained both master craftsmen and apprentices.

The programme was very popular, especially with the apprentices, who were provided with an allowance of US$1 per day, which was higher than their normal earnings, and at the end of their training were also provided with tool kits costing about US$75, at no cost.

A survey of those who passed through the training showed that about one-fourth of apprentices trained had established their own business within a year of completing the training, and that the masters wanted more frequent training and would be willing to attend without any allowances or equipment kits if necessary. However, they wanted only half-day training, so that they would have time to look after their workshops while they were in training.

Another initiative was taken specifically to upgrade the skills of young apprentices, most of whom were graduates of JSS and had spent at least 18 months either as apprentices or employees in informal-sector workshops. Training took place between September 1992 and March 1993 in 16 private and public institutions in two areas, namely, electrical wiring and appliance repair; and arts and crafts (carving, leatherwork, and weaving).

284

The programme was organized and run by an *ad hoc* task force which was responsible for the selection of the institutions, the training of trainers, and for developing the necessary instructional materials. The heads of the institutions were in turn responsible for promoting the programme using mass media, churches and other local media. The trainees were then selected through a competency assessment and interviews. There was an average class size of 20. The instructors were paid daily allowances, while heads and proprietors were given a lump-sum payment at the end of the three-month term. The institutions were also supplied with training materials and equipment. An evaluation at the end of the training showed that the trainers were satisfied with the training given. Again, there is no information on whether or not graduates increased their productivity or established their own business.

In spite of these promising examples, most TVET institutions are not well prepared to train apprentices and master craftsmen. Obstacles result from a number of factors including: obsolete training facilities/workshops, inadequate equipment and tools, lack of updated modules of employable skills, lack of a comprehensive system of national examinations, testing and certification, and inadequately trained instructors.

In Ghana, a key challenge for making training institutions more attentive to the needs of the labour market is to open them up to new target groups, namely micro-entrepreneurs and apprentices. This is not an easy task considering the institutional resistance and the need to adapt training styles and content to a different audience. This is particularly the case for programmes aimed at master craftsmen. Poorly qualified instructors, with no experience of real enterprise conditions, are not ready for training informal-sector micro-entrepreneurs.

2.1.4 Kenya[17]

As already indicated (see above) the Kenya TVE system does make specific provision for preparing the integration of young people into the micro-enterprise sector. This is done through artisan-level two-year courses and craftsman three-year courses provided by various public institutions (technical training institutes, institutes of technology, national youth service training institutes and other parastatal institutes).

Kenya also benefits from a well-organized informal sector; there are some 300 Jua Kali associations with over 20,000 registered artisans, and a relatively rich experience of government intervention in this sector. Hence, the Jua Kali sector has been assisted by the government and donor agencies to improve the training of apprentices and master crasftmen as well as the organization and management of micro-enterprises.

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[17] Adapted from the country monograph.

As a result, there is currently a lot of activity in training at the informal level, with a multiplicity of sponsorships. However, the impact of such training is often difficult to assess.

A major World Bank-supported project has been implemented over the past five years. In this project, the Jua Kali artisans and many other small and medium-scale entrepreneurs have undertaken training through a voucher system in which a wide range of skills and knowledge in technical operations, business management and marketing have been provided.

In spite of its contribution to promoting training within the informal sector (see below), the impact of this project has generated some concern from the stakeholders, who include the Jua Kali artisans. One of the issues raised has been that of leadership wrangles on the part of the Jua Kali associations and their Federation, which was designated one of the project's implementers with the government.

Box 2. The World Bank Jua Kali project: selected facts and figures on the training component

The project, as redesigned in 1997, had three major components:

- *Training:* including a voucher programme for individuals and employees of Jua Kali enterprises, capacity-building of Kenya's training infrastructure with a Jua Kali focus, and support of microfinance activities of Jua Kali associations;
- *Technology development:* including research/information programmes in certain important sectors, technology training vouchers for higher-end training for SMEs, and the development of sites and services to support SME development and expansion; and
- *Institutional development:* aimed particularly at supporting the activities of this and other projects with a similar focus.

Training

The *voucher-training programme* is now a reality. The original 'target' for vouchers was 32,000 nation-wide, but this was subsequently scaled-back to 24,000. As of end-February, 25,353 vouchers have been issued valued at about KSh 11,000 per voucher or some KSh 280 million in total. Ten per cent of the value of each voucher is paid up-front by the beneficiary, indicating that more than 25,000 Kenyan citizens have bought-in to the programme with their own resources. About 14,000 training 'events' have taken place, so that around 11,000 persons are holding vouchers for which they expect to tender for training, presumably in the relatively near future. Tracer studies and follow-up interviews indicate that most of the training is well received and has enabled the recipients to start or expand small businesses. Although detailed statistics are not available, some of the later requests are for second vouchers for additional training, further suggesting that the recipients appreciate what they are receiving.

Capacity building for training has also achieved results. Most notable is the directory of 745 'registered trainers' (out of more than 2,000 applicants) who are available to voucher-holders. In addition, more than 100 trainers in certain crafts have received 'training for trainers' to further improve their skills. A further component – a grant scheme to help public training institutes upgrade their training capacit – has not really taken off as yet although certain proposals are still being considered.

Capacity building/training for Jua Kali association SACCOs (Savings and Credit Community Organizations) has exceeded original expectations. The objective was to help stimulate the formation of up to 25 JKA SACCOs, and already more than 40 have been created. SACCOs are at different stages of development, but 12 have already started savings and credit operations and have accounts with the Co-operative Bank of Kenya. The demand for training on the operation and management of SACCOs is high, and the project has effectively been able to meet this demand. While there is no expressive linkage, many of the recipients of voucher training are being directed to the SACCO credit operations as well as to some of the more established credit programmes such as Kenya Industrial Estates (KIE) and Kenya Women Finance Trust (KWFT).

Source: World Bank project review (internal document).

2.1.5 South Africa[18]

For centuries, African people in South Africa passed on skills from parent to child through systems of traditional apprenticeship. Goldsmiths, thatchers, stonemasons, potters, jewellery makers, traditional healers, miners and blacksmiths all passed skills from generation to generation through forms of indenturing that were woven into the cultural fabric of their societies.

However, these traditional practices were eroded with the advent of the colonial period in the 1650s. The pace of erosion was initially slow - dictated by sporadic wars fought over land over two centuries – but the pace of change accelerated dramatically when the colonial powers first discovered diamonds in the 1860s and then gold in the 1880s.

Initially immigrants met the skill needs of the colonial powers. They brought with them their craft trade unions and associated traditions: branches of the British-based Amalgamated Engineers Union, the Boilermakers' Society and others were formed in South Africa. However, as the colonial powers deployed more military personnel in the colony the need to generate skills locally became apparent. The first contracts were in skill areas associated with servicing the army – such as wheelwrights and saddlers. The first locally signed apprenticeship contract was for a wheelwright in 1857. The British apprenticeship system, principally controlled by the craft trade unions imported along with the early craft workers, took root in South Africa once mining took off in the 1860s.

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[18] Adapted from the country monograph.

In the 1960s and early 1970s the South African economy experienced unprecedented growth (on the back of the post-war boom). In this context there was a growing demand for skilled labour. Employers enjoyed tax benefits when they entered and completed apprenticeship contracts. In 1975 a total of 36,426 people were engaged in apprenticeships.[19] Not surprisingly, for most black South Africans, system-wide exclusion was the issue, and the struggles of black workers and their communities were against apartheid in general rather than for access to apprenticeship in particular.

For the first time in South African history the Manpower Training Act of 1981 allowed all South Africans to embark upon apprenticeships and the system was governed by a single Act. It also introduced a number of other innovations, many of which were inspired by changes taking place within the British training system, including:

- The introduction of a National Training Board (NTB) to advise the Minister of Manpower on training issues (replacing the earlier Apprenticeship Board set up under the 1944 Act). The NTB consisted of social partners appointed by the Minister for this purpose. But until 1991 representatives from the democratic movement were excluded and groups such as the *Blanke Bouwerkers Unie* (White Building Workers Union) were included.
- The introduction of the competency-based modular training system for the apprenticeship system (to replace the earlier 'time-served' model).
- The introduction of a decentralized system of voluntary industry training boards (with optional trade union participation) with the power to manage existing trade training, to nominate new trades for designation and pay grants to employers from their own training levies. At the time that the legislation was eventually repealed in 1998, 33 industry training boards had been established.

However, although the legislation provided for the de-racialization of the apprenticeship system – in practice very few black apprentices were indentured. This was partly as a result of persistent racism amongst employers and craft trade unions and partly as a result of the overall decline of the apprenticeship system. The figures for the period of transition are provided below in *Table 26*.

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[19] Department of Manpower Annual Report, 1976, Table XVI.

289

Table 26. Apprentices registered – 1977-1981

Apprenticeships	**1977**			**1980**				**1981**			
	W*	C	A	W	C	A	B	W	C	A	B
Totals	10,066	871	323	8,568	1,406	471	82	9,232	1,595	645	495

Source: Department of Manpower, 1981 Annual Report, Table 12, p. 25.
* W = White; C = Coloured; A = Asian; B = Black (African).

After 1990, racially classified figures were no longer recorded. Of the 9,054 indentured apprentices recorded in 1990, 6,709 were white (74 per cent), 871 were coloured (9.6 per cent), 523 were Asian (5.8 per cent) and 951 were African (10.5 per cent).[20]

Between 1975 and 1991 the number of new apprentice contracts held fairly steady, it only fell from 11,260 to 10,758, and then suddenly to 7,492 in 1992, 6,247 in 1993, down to 5,545 in 1995.[21] In 1999, the number was at 3,129. There are a number of reasons given for this decline.

The most proximate reason was the withdrawal of 'tax concessions on employee training' on 31 July 1990.[22] The reason given at the time was that "the Margo Commission recommended that the tax expenditures still remaining in the tax system should be phased out" and whilst direct subsidies were proposed "to directly stimulate certain types of training ... mainly the work categories where shortages of much needed skilled manpower are experienced"[23] these were never introduced.

However, indirect factors also contributed to the decline. During this period the government-owned utilities, and producers, who had traditionally trained a large number of apprentices both for their own needs and for those of the market, were under increasing pressure from the state (which in turn was under international pressure) to privatize or 'commercialize' their operations. Furthermore, the decline in those performing elementary occupations may also be supporting this downward trend in apprenticeship contracts.

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[20] Central Statistical Services (CSS). 1994. Labour Statistics 1994. Pretoria: Government Printer, 3.57, quoted in Kraak and Hall (1999:227).

[21] Department of Manpower, Annual Report, 1995, Table 4.1.

[22] Government Gazette No. 12624 on 11 July 1990.

[23] Memorandum issued by the Department of Manpower, memo/fs/av, on 22 August 1990.

In an effort to revitalize this mode of vocational education, seen as an important asset in the South African training culture, the government has designed a new scheme called 'learnerships'. Learnerships are a more flexible form of apprenticeship. They have in common with apprenticeship the requirement that a workplace experiential component be added to learning and that a practical assessment of competence be undertaken. This new scheme was designed to meet the following criteria:

- structured learning combining theory and workplace experience;
- demand-led training;
- flexible and less costly;
- integrates theory and practice;
- leads to a recognized qualification under the National Qualification Framework (NQF, see below).

Learnerships are not restricted to blue-collar trades. They can be in any of the 12 NQF learning areas and at any of the NQF levels (in general, further or higher education). They can, in other words, respond flexibly to the changing needs of the labour market.

Under the Skills Development Act, Sector Education and Training Authorities (SETAs, see above) must submit learnerships to both SAQA and to the Department of Labour for registration. The latter registration is required to ensure that the work experience component (not a requirement of SAQA) is included and that the necessary grants for employer cost-offset as well as learner allowances are defined.

The Skills Development Act further requires a tripartite agreement between the learner, a training provider (accredited by the South Africa Qualification Authority – SAQA) and an employer. The employer employs the learner, who is exposed to the specified education and training and benefits in this context from provider's support. This was designed to overcome the growing divide between the workplace and the training provider.

From a provider perspective, the learnership system offers a new source of funds. Employers will receive grants that take due account of the costs of training – and this is intended to provide incentives to employers to take on more learners, thereby providing an expanded market for providers. On June 2001, the Minister of Labour launched the Sectoral Determination for Learnerships – which outlined the allowances and employment conditions for learners who were unemployed before commencing their learnerships. He also launched the Funding Regulations which set up the framework for grant allocation to employers for learners from SETAs.

Progress as at May 2001: SETAs have submitted the titles of about 416 new learnerships, of which 70 are already under construction and 56 are ready for registration. On 26 June 2001: learnerships were formally launched by the Ministers of Labour and Education, at which point 625 learnership titles had been submitted, 15 were registered and 17 were awaiting final signature.

2.1.6 Zimbabwe

The provision of technical and vocational education and training (TVET) for the informal sector in Zimbabwe, dates back to the pre-independence era. Since then, it has undergone several changes.

Today, the government acknowledges the significant role played by the informal sector in alleviating unemployment and poverty. Consequently, in recent years, there has been a deliberate shift to offer TVET for the informal sector.

In this context the Traditional Apprenticeship Programme (TAP) represents an interesting initiative launched within the Informal Sector Training and Resource Network (ISTARN). ISTARN is a joint venture between the Zimbabwean and German Governments and receives financial and technical support through GTZ. ISTARN developed an integrated approach to strengthening the informal sector, and increasing employment and business viability within the sector.

Within this framework, TAP programmes are being run mainly in the technical colleges utilizing the excess capacity during the holiday. Vocational Training Centres (VTC) are also offering TAP courses.

A TAP is a development intervention aimed at providing vocational skills training which is cost-effective, relevant and accessible to relatively large numbers of people. The TAP attempts not to alter the character of the traditional apprenticeship or to interfere excessively, but to enhance it. Therefore, TAP interventions are aimed to improve the skills transfer process and thus increase the ability of trainees to create their own jobs. The main features of the programme are the following:

- the training is aimed at the informal-sector employment and self-employment;
- it requires minimal educational entry level (the ability to read, write and perform basic calculations);

- it does not involve long-term formal training, on average the traditional apprenticeship duration does not exceed 12 months in total, including about 6 weeks of institution-based (theoretical/ practical) training;
- it is very flexible in its operation.

It is to be noted that graduates from this programme who have potential to start their own businesses are further supported by:

- access to credit for tools or other start-up capital;
- access to small-business management training;
- regular monitoring visits by small-business advisers to give appropriate advice and monitor performance.

TAP seems to have had a satisfactory success rate in as far as employment is concerned for its graduates. Furthermore, the impact of TAP and other ISTARN components is considered significant in as far as employment creation is concerned. The results of the most recent tracer studies carried out so far on the programme through the Impact Monitoring System (IMS), show that, out of a sample of 82 TAP graduates (64 per cent males and 36 per cent females), 88 per cent had secured some form of employment, including: 44 per cent self-employed; 31 per cent employed in the informal sector; 13 per cent employed in the formal sector and 12 per cent unemployed (Kuwengwa, 2001).

This ability to secure employment is of specific importance and relevance when compared to the results of the formal training courses of the technical colleges.[24] Various tracer studies undertaken have revealed that only 41 per cent of the formal study graduates (with an average course duration of three-four years), had secured gainful employment within a year after graduation (Kuwengwa, 2001).

Available data also suggest that the programme is cost-effective. In 1998, the unit cost was under Z$13,000 (or about US$24), compared to more than twice this figure in technical colleges (Chirapa, 2001). These findings are in line with the results of earlier investigations showing that, in the late 1980s, conventional artisan training was significantly more cost-effective than the pre-employment artisan training programmes provided by the Zimbabwe Youth Training Centres (Bennell, 1992).

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24. For an analysis of cost-effectiveness of alternative training modes in Zimbabwe see Bennell, 1993.

2.1.7 Lessons

- In all of the reviewed countries, employers' participation in training delivery is an increasing concern and forms part of TVE policy interventions;
- contrary to the situation in French-speaking Africa, anglophone countries have a much stronger experience, and sometimes a tradition, both in dual forms of public-sector training and in the provision of training for the artisan sector;
- some countries are well advanced, in terms of policy development, in modernizing apprenticeship schemes to integrate them into a national Qualification framework and move from the traditional 'time-served model' to an emerging competency-based model (Botswana, Ghana, South Africa);
- similar to what is happening, on an experimental basis, in some French-speaking countries, the opening up of public TVE institutions to the informal sector, is likely to produce positive indirect effects on initial training;
- the full exploitation of the potential benefits that public TVE institutions could derive from dual training schemes is jeopardized by obsolete training facilities and poorly qualified and/or inexperienced teachers resulting from a long-term deterioration in the level of financial support received from governments;
- the linkages between apprenticeship interventions and self-employment seem to be promising, although comprehensive evaluations are not available (Ghana, Kenya, Zimbabwe);
- finally, in spite of the lack of robust evidence, the youth employment situation seems to indicate that dual training schemes, although most useful, are not sufficient to improve linkages between TVE delivery and employers and ensure the relevance of training content in a context of depressed labour markets (Ghana, Kenya, Zimbabwe, and probably South Africa).

Box 3. ***The German dual system***

It is first of all an **alternating training structure** – which means that training takes place in a company providing the apprenticeship and in a compulsory vocational part-time school (which accounts for one to two days of the weekly training provision).

Secondly, the German system is rooted in an 'occupation-orientated' or genuinely 'vocational' training culture: **Vocationalism** in the German meaning of the term stands for integral Qualification based on uniform training schemes and highly standardized examination procedures (Benner, 1977). This implies that training is indeed workplace-led and predominantly practical by stressing the importance of work experience during the training period. At the same time, however, the system works in accordance with skill requirements defined 'around the workplace' (Deissinger, 1998; Harney, 1985).

Moreover, the dual system is determined by the **involvement of the federal and state administration** which makes occupational standards and conditions of skilled apprenticeship legally enforceable as well as marketable (Raggatt, 1988). At the same time, the German 'training culture' (Brown and Evans, 1994) is based on the notion that vocational training should not only be interpreted as a contractual duty but also as an educational process.

Finally, the fact that the state's function is actually restricted to securing quality standards in a predominantly formal manner makes the **principle of consensus** perceptively one of the long-standing parameters of dual training in Germany. This means that public and private as well as semi-private institutions have established various forms of co-operation within the system and, even more importantly, that the social partners normally take the initiative when it comes to defining a training ordinance (Benner, 1984).

Source: Deissinger, T., 2001. Quality control and employability: are the parameters of VET in Germany's Dual System facing severe challenges?, Paper presented at the AVETRA Conference, Adelaide, Australia, March 2001.

2.2 *Community-based programmes*

2.2.1 Training and rural poverty

In spite of the urbanization process, most sub-Saharan countries remain rural and most of the poor are concentrated in rural areas. Furthermore, rural areas are also particularly disadvantaged in education. "The factors (…) characterizing the different environment in rural Africa include: dispersed populations, displaced populations (following conflict), situations of ongoing conflict, nomadic populations, limited basic infrastructure, endemic malnutrition among children, the HIV/AIDS epidemic, and high levels of child labour in agriculture. The consequences of these factors for student learning are that:

- schooling is an interrupted process (…);
- the conditions of schooling and the nature of students' lives in rural areas act to reduce students' readiness to learn (…);
- teaching is often of poor quality and is poorly supported (…);
- formal schooling often fails to connect with the needs of rural communities (…);
- rural education is often not an immediate priority for governments (…)" (World Bank, 2000a).

In this context the provision of TVE to rural communities constitutes a real challenge to redress regional disparities in access, contribute to rural development and reduce poverty. Although past attempts to achieve these goals through specific education and training programmes were disappointing (see the 'ruralization' experience in various countries), some schemes, including the well-documented Botswana Brigades, seem to produce interesting results.

2.2.2 Botswana[25]

The Botswana Brigades, community training organizations, used to enrol students with 7 years of basic education but have now increased the minimum entry qualification to 10 years following the government implementation of 10 years of open access to basic education.

Currently there are 41 brigades. Brigades offer various trades at different levels. The enrolment figures show that the enrolment in the brigades increased significantly between 1993 (close to 3,000 learners) and 1998 (4,000 learners). This was facilitated by a major development project for the upgrading and expansion of 11 brigade centres.

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[25] Adapted from the country monograph.

Brigades through the years have made Botswana famous because of their training and production activities, referred to as *training with production*, and became modern exogenous organizations in the traditional rural society of Botswana. A brigade as used in this context refers to an institution that is owned by the community and managed through a Board of Trustees in a particular catchment area.

The first aim of establishing brigades was to encourage respective communities to participate in their development and endeavour to improve their livelihood through entrepreneurship and self-reliance.

Accepted benefits of combining training with production include:

- such an approach enables the learners to connect and apply theory to practical work;
- work attachment arrangements contribute to employment upon completion of training;
- production experience can lead to self-employment;
- although not substantial, part of the income generated through training with production is used to improve the training infrastructure.

The second motive for establishing the brigades was due to concerns over the future of school-leavers and demand for semi-skilled labour for the country. Brigades used to be the only alternative to academic upgrading and on-the-job training.

In the past, brigades' training costs were covered from income generated from sales of products/services. The training element in the brigades was by then considered cheap to run.

Most of the recurrent and training costs were met through profits generated from production income. Today, the government provides assistance to the Botswana Brigades by providing financial support for training and staff salaries (80 per cent of teacher salaries).

Although each brigade is unique, the decision-making tends to follow a common pattern. The similarity is derived from a common constitution, the Deed of Trust, which legalizes the membership of the trustees to execute different duties of the brigade. This Board is legally empowered to act as owner and executor of the assets of the brigade on behalf of the community it represents. Typically, a Board of Trustees would have 11 Board members with a full-time paid co-ordinator responsible for the daily administration of the centre. The centre also employs production managers, training staff, business managers and ancillary workers. The teachers are also recruited and employed by the boards of trustees.

Although the achievements of the brigade movement are widely recognized, Botswana is currently experiencing tremendous problems with regard to the management of these institutions. There is persistent mismanagement in the running of the brigades' affairs, mostly due to the lack of proper control by the Board. The Board's Trustees, although assisted through the District Commissioner's Office in the respective communities, are usually lay-persons without managerial skills. While the government and the donor agencies are trying to support the operations of the centres technically and financially, a tendency is gradually developing in some centres to wholly depend on these handouts for the daily survival of the institutions, which is not a healthy trend. A major evaluation of the whole brigade movement was therefore being undertaken in 2001.

In 1996-1997, the Department for Vocational Education and Training (DVET) was faced with a situation in which accounts and audit of all brigades were in arrears for three-four years. This implied that there was a complete breakdown of the management information system which generates information for decision-making. It is in this context that a policy initiative was undertaken to computerize the accounting functions to enable the brigades to:

- maintain accounts accurately and in time;
- update records every month and produce financial statements;
- enforce multi-user capability;
- exchange information among brigades and between DVET and brigades.

In mid-2001, 10 out of 41 brigades registered with DVET were equipped to maintain accounts using a specific software (Pastel Accounting). The remaining brigades will be equipped with hardware, software and trained personnel to maintain the accounts on computers within two years from now. It is hoped that this initiative will improve management efficiency, transparency and allow a proper monitoring of the brigades' activities within the framework of the entire TVE system. Nevertheless, this situation reflects the limitations of community-based initiatives.

2.2.3 Namibia

In 1998 Namibia embarked on a large community training initiative to help the unemployed youths and communities to engage in productive activities. This programme was to be implemented through the community skills development centres (COSDECs). Initially, these centres were to be equipped and staffed by the Ministry of Education. However, the Ministry's intention was to ultimately hand over these centres to the local communities, with a view to making them community-owned, similar to the Botswana Brigades scheme.

There are currently seven COSDECs; five are funded by the European Commission, the other two are supported by the Namibia Association of Norway and HOPE '87, an Austrian non-governmental organization.

All COSDECs are affiliated to the Community Skills Development Foundation, which provides the centres with advisory services as well as technical support. It is the body through which they are linked to one another as well as to outside agencies. The Foundation provides the COSDECs with seed funding which it would have received from the government, the private sector, individual benefactors and donor agencies. However, the centres are in turn expected to mobilize additional resources through selling their product fees from trainees.

Similar to the Botswana Brigades, the COSDECs are owned by a Community Trust, which is run by a Board of Trustees. The Board is responsible for the appointment of a manager. However, instructors are part-time and are recruited on a contract.

The training courses on offer differ from one region to another. They are for self-employment, as well as for employment needs of the informal sector. Curricula are flexible and can be provided by the Foundation.

There has been a steady increase in the enrolment figures from a mere 36 in 1998 to 353 in 2000, still a very modest scale (Sirrika, 2001).

Awards and certification are done by the Namibia Chamber of Craft (NCC). The NCC is a body that brings together various craft associations. It is modelled on the German Chambers of Crafts. However, it is expected that, eventually, following the planned implementation of competence-based modular curricula in the formal VET system, COSDECs' programmes will become eligible for national certification within the framework of the Namibia Vocational Qualification.

COSDECs are still very new and modest in size. It is therefore not possible to assess their impact. However, while their design clearly reflected a concern for rural communities and informal-sector employment, the foreseen evolution within the framework of the future Qualification Framework may result in their de facto absorption in the formal TVE sector.

2.2.4 Lessons

- Finding appropriate ways to provide skills to rural communities remains an important, often overlooked, challenge in SSA;
- however, the search for success stories is not very promising and the 'old' Botswana Brigades remain a source of inspiration, although their recent development tends to make them closer to formal public institutions, in a context of rapid modernization and growth of the economy;
- for low-income or slow-growth economies, part of the answer to the community-level training issue probably lies in broader interventions combining skill development with other development initiatives, including entrepreneurship and SME support.

2.3 Entrepreneurship training

2.3.1 Training entrepreneurs: the rationale

Although it is arguable that entrepreneurship lies in cultures, education is often believed to be a key instrument to foster an entrepreneurial spirit among youth. Hence, many countries, regardless of their level of development, have introduced entrepreneurship education into the education and training system. The approach chosen varies from country to country, sometimes programmes on entrepreneurship/enterprise education are introduced at a very early age in basic education. The rationale here is to create awareness in children's minds of the existence of various options in the world of work. For instance in Kenya, when the reform of introducing the 8-4-4 system of education was implemented, the objective was clearly to ensure that at the end of each level, including primary school, school-leavers would have sufficient knowledge and skills to enter the labour market, including through self-employment (Ferej, in Atchoarena, 2000).

Another approach consists in introducing entrepreneurship education at a later stage, through specific non-formal education programmes, but also within the framework of TVE. In a context of insufficient job creation in the public sector and in large companies, developing this type of education is part of a broader effort to promote SMEs and self-employment in the informal sector.

Contrary to the situation prevailing in most French-speaking SSA countries, where entrepreneurship education and training does not seem to have taken off, anglophone countries are much more advanced in this direction, as illustrated in the cases of Botswana, Kenya, South Africa and Zimbabwe.

2.3.2 Botswana

There are several government and private-sector training initiatives being undertaken to tackle the unemployment problem through enterprise development. The Ministry of Education and the Ministry of Commerce and Industry provide entrepreneurial skills training at several of their institutions.

The Automotive Trades Training College, one of the institutions which fall under the umbrella of the Department of Vocational Education and Training (DVET) currently runs the 'Starting and Managing Your Own Business' (SMYB) course, which aims to "promote small enterprises with a view to increasing opportunities in the economy, and widening the availability of locally produced goods and services".[26] The target group comprises potential but also existing entrepreneurs. Over 180 persons have been trained over the four-year existence of the programme, which provides both day and evening tuition.

SMYB is a comprehensive and innovative training programme. Participants are exposed to a wide range of 'subject' areas during the course duration of 12 weeks part-time or 6 weeks full-time. Understanding entrepreneurial characteristics, costing, pricing, preparing financial statements, keeping business records, marketing, human resource management and preparing the business plan are some of these 'subject' areas. Participants also benefit from lectures conducted by citizen entrepreneurs, representatives from financial institutions and other relevant organizations.

The Small Enterprise Business Training Committee (SEBTC) of the Ministry of Commerce and Industry recognizes several training providers for entrepreneurs, including its own Integrated Field Services (IFS). IFS operates across Botswana and offers business management training to various target groups in the areas of business management, metalwork, pottery, construction management, garment manufacture, carpentry and leatherwork. Its Tselakgopo programme seeks to address the business management training needs of illiterate entrepreneurs. IFS plans in 2001 to emphasize training in entrepreneurial development in addition to business management. It will seek to develop entrepreneurial characteristics, such as motivation, among its target population.

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[26] Starting and Managing Your Own Business – Course, ATTC, July 1995, p. 2.

As part of an initiative to promote the development of small and medium-scale industry in the country, the Small Business Promotion Agency of the Ministry of Commerce and Industry attaches great importance to the provision of business management training to assist entrepreneurs manage their business effectively. Training providers at both government and non-government levels conduct training activities for the self-employed. The training mainly focuses on imparting key basic business skills such as costing, buying, stock control, marketing, and business planning.

Training targeting the unemployed is also conducted by Enterprise Botswana, a tripartite initiative by the Botswana Government, the United Nations Development Programme (UNDP) and various private-sector institutions. The primary focus of Enterprise Botswana is to "support and advance the development of entrepreneurship through skills development in the form of training and extension services".[27] Training workshops, seminars, diagnostic reviews, business counselling, loan monitoring functions and the installation of accounting and bookkeeping systems for clients, are undertaken.

In an effort to improve the efficacy of citizen enterprise development programmes, government has decided to establish an autonomous institution called the Citizen Entrepreneurial Development Agency (CEDA). The new institution will co-ordinate and manage some of the existing as well as additional programmes, aimed at the development of citizen-owned business enterprises through the development of entrepreneurial and managerial skills. As part of the consolidation of existing entrepreneurial development programmes, the Financial Assistance Policy (FAP) and Small, Medium and Micro Enterprises (SMME) will now be provided under CEDA. CEDA will subsidize interest payments and training, monitoring and mentoring as opposed to outright grants. A detailed structure of CEDA will be finalized in June 2001. Entrepreneurs will also be able to acquire equity capital though the venture capital fund to be established under CEDA.

The support for SMMEs under CEDA will be increased in scope as well as made more concessional to cater for citizen-owned projects. The financial support to SMMEs and large projects under CEDA geared towards self-employment are as follows:

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[27] Enterprise Botswana News, August 2000.

- Small and micro projects reserved for citizen-owned projects. Loan limits in this category will be increased from P20,000-P150,000. Interest rate will be reduced from 15 per cent to 5 per cent and the repayment period extended from 36 months to 60 months.
- Medium-scale projects also reserved for 100 per cent citizen-owned projects. Loan limits in this category will range between P150,001 and P2 million at interest rate of 7.5 per cent per annum.
- Large-scale projects which will be in the form of equity capital and management assistance. This will be provided under the Venture Capital Funds.

A training, monitoring and mentoring programme will be established to advise citizen-owned businesses on the management skills relating to purchasing, production, planning, marketing, financial management, human resource management etc.

For 2001, a number of new initiatives are being implemented in the field of training in Entrepreneurial Skills, including:

- Entrepreneurial training will be available through the new Botswana Technical Education Programme. Candidates will be required to take a mandatory Entrepreneurship Key Skill unit at each level of their vocational programmes. Three levels – Foundation, Certificate and Advanced Certificate – will be available to school-leavers and adult returnees/mature students. The Entrepreneurship units are Basic Entrepreneurial Skills, Investigating Your Business Idea, and Preparing for Business. Each unit has a notional completion time of 40 hours.
- Integrated Field Services (IFS) plans in 2001 to emphasize training in entrepreneurial development in addition to business management. It will seek to develop entrepreneurial characteristics such as motivation among its target population.
- Enterprise Botswana has conducted a training needs analysis, which has led to new training programmes being developed for delivery in 2001. These include: Business awareness creation, to create business awareness and enhance business acumen, Securing loans, Starting a business, Identifying business opportunities, How to manage cash.

In spite of those initiatives to implement entrepreneurship-oriented educational and training reforms in Botswana, it should be noted that sociocultural factors are such that the youth still give preference to secure professions. A study recently conducted among senior-secondary students clearly showed that self-employment is not seen as an attractive option. The author concluded that "self-employment is viewed either as a last resort, or even as an unviable alternative to working for the family without pay, or simply hanging around doing nothing" (Vlaardingerbroek, 2001).

2.3.3 Kenya

Several stakeholders, including the Kenya Federation of Employers (KFE), Kenya Association of Manufacturers (KAM) and the Central Organization of Trade Unions (COTU), have expressed concern over the continued decline in the national economy and the loss of jobs in both the public and private sectors. They have called for the government's prioritization of investment in TVT, particularly the provision of entrepreneurship training to encourage self-employment and creation of jobs by the youth, rather than their looking for salaried employment.

The introduction of entrepreneurship education in technical and vocational institutions from 1990 has helped to raise the awareness of TVE graduates about the demands of the modern employment sector. An evaluation study in 1994 (Kerre *et al.*, 1994) revealed that most graduates were then looking out for self-employment.

Today, many TVE institutions are related to a Small Business Centre (SBC), through which consultancy and support in conceptualizing, starting and running small businesses is given to small-scale entrepreneurs.

Efforts were also made at the university level to produce graduates in entrepreneurship who will serve as teacher trainers. In 1994, 34 trainers graduated with a master's degree in entrepreneurship education. Today, postgraduate programmes in entrepreneurship education are offered in several universities. Currently, an M.Phil programme at Moi University and a Ph.D. programme at Kenyatta University have been established to supplement the Masters programmes at Jomo Kenyatta University of Agriculture and Technology and the Higher Diploma at the Kenya Technical Teachers College. Consequently, many teachers in the TVE institutions benefited from in-service programmes and the postgraduate programmes in entrepreneurship education introduced in the public universities. They constitute a qualified pool of personnel to sustain the programmes in the TVT institutions.

The initiative to introduce and promote entrepreneurship education in TVT programmes is considered promising, as more youth than ever before now look forward to self-employment. However, its precise impact and the potential of the informal sector are still unknown.

2.3.4 South Africa

The Department of Trade and Industry established the NTSIKA Enterprise Promotion Agency under the National Small Business Act of 1996 to provide non-financial services to the small business sector in South Africa. Khula Finance Corporation was established to provide financial services.

A study of the small business sector conducted for the UniCity of Johannesburg by a group of local and World Bank researchers[28], found that 72.9 per cent of successful formal-sector small businesses were started by people who were previously employed in the formal sector and saw a market opportunity. A further 11.7 per cent joined an existing family business and 4.4 per cent had overseas experience. So only 11 per cent entered from retrenchment or poverty.

The Johannesburg study found that over 70 per cent of small businesses use in-house training. About 30 per cent indicated that training was sometimes outsourced to private training providers or technikons, whilst less than 20 per cent accessed training through 'government institutions' (presumably technical colleges).

This would seem to suggest that the successful pathways to self-employment in South Africa are similar to those which have been identified more broadly: "Evidence about the pathways to self-employment of successful entrepreneurs continues to suggest a high road from school to training (often a mixture of formal and informal crossing enterprise- and institutional-based modalities) and thence to wage employment, before ending in sustainable self-employment." (Afenyadu *et al.*, 1999:73)

The technical college sector has not, to date, been able to serve the small business sector very satisfactorily, although isolated examples of innovation and development are to be found. Below are listed examples of innovative practice that is occurring in the technical colleges in the Gauteng province for illustrative purposes (Fisher *et al.*, 1998:161):

- Atteridgevill has developed its entrepreneurship project.

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[28] Presentation to the Department of Labour, 5 March 2001, Local economic development through sustainable job creation and poverty reduction. Information from presentation slides. Publication forthcoming.

- Soshanguve is implementing the NTSIKA programme (see below).
- Eastside College has introduced a project in which NTC 6 Business Studies students run the student canteen. This college is also investigating the conversion of a number of small houses adjacent to the college into micro-enterprise hives. This vision extends to turning Troyeville into an entrepreneur's suburb.
- Springs College has done interesting work in the conversion of the Far East Rand Hospital as a centre for enterprise development.
- A number of colleges participate in the Shell Livewire competition, which requires students to develop business plans.

Other provinces have similar examples. It is also important to note that both universities and technikons have developed programmes to support small business development.

The Integrated Training and House-Building Concept constitutes an innovative way of imparting self-employment skills while directly contributing to improving the living conditions of participants.

The aim of this initiative is to enable young adults to build their own home, through their own efforts and artisanship, and to subsequently use the acquired skills in an economically gainful way. The combination of production and training is designed to enable participants to acquire basic skills in the informal house-building sector. The concept is based on the government's financial support for the construction of low-cost permanent residential structures (so-called RDP houses). The active participation of the 'owner-builders' in the construction and development of their own houses, with the financial support of the government, has a significant motivating effect.

As further stages of this approach, there are modules for imparting the skills required for running a micro or small enterprise. In this way, participants can use the acquired abilities and skills to earn their sustenance as self-employed entrepreneurs, either within their own communities or elsewhere.

This concept was tested in several communities, and several improvements were introduced. A first successful attempt at transferring the experience gained and lessons learned from this project, was conducted in conjunction with the Eastern Cape Provincial Directorate of the Department of Labour. In addition, the project can be seen as a first step towards establishing (and assisting in the development of) emerging micro or small providers of training.

Similar initiatives have been successfully piloted in other areas such as:

- brick/block-making project;
- home-based livestock (sheep/goat/pig) production unit;
- home-based hydroponic vegetable (spinach/tomato) production unit;
- sheep/goat farming practical training concept (the 'sheep breeding' training project).

Participants in this modular scheme can acquire the necessary skills and knowledge relevant to sheep farming within one year. An experienced farmer is employed as mentor or trainer. As remuneration, this farmer receives half of the new-born lambs, as well as proceeds from wool sales. This is a further starting point for the development of emerging micro providers of training.

Also worth mentioning among many other initiatives is the 'Technopreneur' project started at NTSIKA, an agency of the Department of Trade and Industry. This programme is meant to use the resources of the technical colleges to support self-employment. It was targeted initially on training graduates and offers market needs analysis, targeted technical training, entrepreneurial training, credit, hive facilities, sub-contracting, mentoring and follow-up once the hive has been left. NTSIKA planned to expand this project to all 64 township technical colleges by 2001. However, given the challenges of transformation facing many of these institutions, this and other innovations were difficult to implement.

2.3.5 Zimbabwe

Rising unemployment levels, notably among school-leavers, has brought the Zimbabwe Government to pay increasing attention to entrepreneurship development and self-development. Although this concern was reinforced by contextual economic and social factors, it should be noted that the country has a long tradition of vocational preparation for children and youth. Already, in the early 1960s the 'F2' secondary schools provided practice-oriented education; furthermore, compulsory and comprehensive education, which incorporated a practically oriented curriculum, had been offered to white children since the 1930s. However, colonial Rhodesia limited entrepreneurship for Africans to the peasant agriculture. Post-independence governments gave an impetus to entrepreneurship development. This first took place within the framework of a new philosophy of education, which was referred to as 'education with production' under the Zimbabwe Foundation for Education with Production (ZIMFEP). In this context, practical subjects were meant to foster the attitudes and skills required for employment or self-employment.

In more contemporary Zimbabwe two major initiatives are currently in place to contribute to self-employment and entrepreneurship development through training. The first, already mentioned earlier, is the ISTARN. The project's overall objective is to increase employment opportunities, including self-employment, by supporting the informal sector.

This project, initiated in 1995 with GTZ, was launched at Masvingo Technical College in the Masvingo province. An important principle of the project is that delivery is meant to be driven by the development needs of the communities, rather than by the availability of training facilities and staff for provision of vocational training. Furthermore, training programmes were only one of the various types of support required by informal-sector development, including:

- A Small Business Advisory (SBA) programme aims at working with informal-sector businesses to:
  - identify key problem areas;
  - impart key management skills and counselling;
  - design training programmes relevant to a particular business or need;
  - give appropriate advice to clients;
  - systematically collect financial and other business information from client businesses and keep track of their performance;
  - conduct regular monitoring visits by trained advisers and give on-the-spot training whenever possible.
- A Marketing Support Programme (MSP) aims at promoting the marketing of goods and services by micro- and small businesses. This is done through:
  - development of marketing strategies;
  - assistance in market research;
  - new products and/or technology development;
  - development and promotion of marketing intermediaries who in most cases establish business and marketing linkages with businesses in the formal sector;
  - technical capacity building;
  - encouragement of linkages among businesses.

- Informal-Sector Associations (ISAs): some of the functions of ISAs include:
  - facilitating the procurement of goods at low prices through joint, bulk buying and warehousing;
  - lobbying with local authorities and other service providers on issues concerning the development of informal-sector businesses;
  - organizing joint marketing opportunities for members;
  - networking and disseminating relevant information which is beneficial to members.

The programme also includes a cost-effective, but still at a pilot stage, Traditional Apprenticeship Programme (TAP) that was described earlier (see above). In this framework, the Masvingo Technical College provides training on business start-up, using ILO training materials.

The ISTARN programme also established a 'hire to buy' credit scheme for those who were ready to start their own businesses, but had no capital. This component is now linked to networks with micro-finance institutions, like Zambuko.

The relatively good results of ISTARN (44 per cent self-employment rate) have led to the replication of this programme in Manicaland, four years after the launching of the Masvingo project, with Mutare Technical College as the host formal institution.

The second major initiative to support entrepreneurship through training takes place within the formal setting of Technical Colleges. There are six public technical colleges in Zimbabwe. The entry requirements into these institutions are very selective, applicants must have a minimum of 5 'O' level passes that should include English language and mathematics as well as a science subject for some disciplines. Often, mediocre 'O' level passes fail to secure places in these colleges.

Although it is not their main objective, colleges are increasingly taking initiatives to promote entrepreneurship within the students but also among staff. One of them, Mutare Technical College, has even established an Enterprise Development Centre (EDC) together with production units to facilitate the production and marketing of the departments' produce, e.g. from the wood technology department. Staff and students participate in all the business activities from production to marketing of produce. These activities range from the actual production of items, preparation of tender documents through to final quality control and marketing. This innovation contributes to the development of an entrepreneurial spirit in students and staff and equips them with key entrepreneurial skills.

As an incentive, participants benefit from the income-generating activities of the EDC. This practice is not unique to Mutare Technical College, since all the other colleges offer this incentive to keep projects running.

Business clubs have also been established in some colleges to assist students in preparing bankable project proposals. This followed the initiative of a commercial bank which launched a competition whereby students in tertiary institutions identify a business opportunity and develop a business plan. Besides the prize money, the winner stands to receive financial support from the bank for start-up.

There has also been a proposal to re-orient one of the technical colleges into an institute of technology. The intention would be to promote research and develop entrepreneurship based on technological innovations.

Finally, it should be noted that beyond policy rhetoric (ZIMPREST and VISION 2020) the government has not developed a clear strategy, including specific support mechanisms and incentives that would form the supportive environment required to sustain and expand the existing, often promising, micro initiatives.

2.3.6 Lessons

- In the studied countries, entrepreneurship training is given increasing attention by both governments and donors in an effort to alleviate unemployment, but also to increase competitiveness.
- The many existing experiments have not yet produced a clear pattern of outcomes; evaluation work is particularly required in this field to provide firm empirical evidence.
- As in other parts of the world, obstacles to entrepreneurship training include sociocultural factors introducing a bias towards urban wage employment (e.g. Botswana). Similarly, labour market and wage structures (informal/formal, rural/urban) do not always produce the right incentives to attract the youth towards self-employment (e.g. Zimbabwe).
- However, considering that self-employment is both a challenge, to capture new market niches, and a constraint – many young people being forced into it – developing entrepreneurship awareness and skill programmes in TVE institutions seems consistent with macro-level efforts to increase international competitiveness and alleviate poverty.

- This would call for the inclusion, in technical teacher colleges, of entrepreneurship education, as reflected in the Kenyan case.
- Converging findings suggest that entrepreneurship training needs to be included in a broader package including access to credit, technical assistance and post-training support, as illustrated in the ISTRA programme in Zimbabwe.
- Beyond such an integrated approach, the success of entrepreneurship training depends to a large extent on the capacity of government to create and sustain an enabling environment for the development of micro-enterprises and SMEs;
- The extent to which SSA countries have successfully managed to do so, in a context of adjustment and liberalization, is still a matter of debate (Afenyadu *et al.*, 1999; Morissey and Filatotchev, 2000), but obviously there is a long way to go.

3. National qualification frameworks

3.1 Definition, origin, scope and issues

National qualification frameworks today represent a major component in the international debate on TVE policies. They reflect, in the field of education, a broader agenda for ensuring competitiveness in the global economy and producing a highly qualified and flexible workforce within the framework of a lifelong learning society. First developed in a few developed countries, including the United Kingdom, Australia and New Zealand, the concept and the principles of national qualification frameworks are being adopted and implemented in an increasing number of countries, including several sub-Saharan countries, in West Africa (e.g. Ghana), Southern Africa (e.g. Botswana, Namibia, South Africa) and in the Indian Ocean (Mauritius). In an effort to review and analyze the ongoing trends in this part of the world, it is worth recalling briefly the current state of knowledge in the countries which developed the model, with special reference here to Australia and the UK.

3.1.1 What is a national qualification framework?

There is no common definition of the terms 'qualification' and 'qualification frameworks'. Although, in many countries, 'qualifications' refers to both a certification and to a learning process associated with it, there is a tendency to use this term in reference only to outcomes and assessment. In this new approach qualifications are differentiated from the provision context. Similarly, while many countries have long been using the concept of a qualification system as a comprehensive concept linking qualification achievements to delivery institutions, assessment and recognition procedure and work organization, emerging qualification frameworks refer more precisely to the range of qualifications available, according to a set of specified levels. The specificity of national qualification frameworks is their outcome-oriented nature. In this context, qualifications are defined on the basis of specific outcome criteria. As such, this new paradigm reflects a broader conceptual shift in education from the classical input/process focus to output-focused models.

It should be noted that the concept of outcome-oriented systems (Australia, New Zealand, UK), as opposed to process-oriented systems (France, Germany, Nordic countries) is reductive. National qualification frameworks are rooted in specific national contexts and traditions. Therefore, beyond common key principles, design and implementation vary across countries.

3.1.2 Why were these models first developed?

In the new economic context associated with globalization, rapid technological change and new labour market configuration, qualifications are seen as a central element of an education and training strategy. Of particular concern is the increasing knowledge intensity of work, the disappearance of the concept of occupation, in its classical definition, and the growing need for individuals to change jobs more often. These new conditions laid the ground for developing a new approach to qualification, believed to be more capable of fostering lifelong learning patterns. In most countries, traditional qualification systems are such that learning pathways are fragmented on the basis of general/vocational, formal/non-formal institutional boundaries. Such a delivery pattern does not facilitate lifelong learning. Hence, national qualification frameworks are seen as a response to improve education and training pathways, encourage informal learning, including on the job, and to provide incentives to individuals to continue learning throughout life. According to specific national contexts, the implementation of a national qualification framework can also involve intermediate goals, such as increasing government control over the training system, providing easy means of measuring the impact of the education and training policy on skills and knowledge, forming the basis for implementing outcome-oriented funding schemes.

Without underestimating this rationale, one should not forget that the qualification reform movement also took place in a very specific context, where market liberalism was the driving force in reforming the system (UK, Australia). This dimension should not be overlooked; national qualification frameworks must be seen against the background of the establishment of a training market as a central policy objective. This would involve, gradually, a shift from delivering TVE mainly through public institutions to a situation where public and private for-profit providers compete and have potentially equal access to public funds.

3.1.3 What are the results, so far, of national qualification frameworks?

The implementation of the national qualification frameworks in developed countries has produced mixed results (OECD, 2001). Before reviewing some of the limitations of the reforms, it is worth mentioning that, even in the systems that have the longest experience, implementation has not been completed. In England, for instance, many vocational qualifications continue to come under the old awarding bodies (e.g. City and Guilds). Therefore, the UK NVQ framework is still partial. Similarly, in Australia, the implementation of the training packages[29] is still ongoing.

An increasing body of literature points out the deficiencies of the United Kingdom NVQ model (Flude and Sieminski, 1999; Raggatt and Williams, 1999). Most criticized limitations include:

- past-oriented nature of the system, due to its focus only on current skill needs;
- unique focus on outcomes to the detriment of learning processes;
- bureaucratization of the management of the system, particularly in relation to the 'portfolio' approach;
- 'top-down' model;
- a 'super-tanker' syndrome including high opportunity cost, since other reform directions have been neglected;
- possible de-skilling impact due to a narrowly defined concept of competences, based on the performance of elementary tasks, rather than a wider range of comprehensive skills and knowledge;

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[29] Training packages comprise sets of industry competences designed to support a competency-based training and assessment model.

- those problems would be due to a large extent to rushed implementation, which gives the image of NVQ as being a 'missed opportunity'.

In Australia, although the literature on the Australian Qualification Framework seems more balanced, a number of implementation, but also conceptual, problems have been identified (Hunter, 2001; Wheelahan and Carter, forthcoming). Disadvantages of training packages can include:

- as in England, workplace-based competences assessment is considered reductive by educators and potentially a source of de-skilling;
- grouping several occupations in a unique training package may result in overlooking the context-specific nature of certain core competences[30];
- while the system was meant to improve consistency and articulation, the introduction of training packages has (so far) failed to make the collaboration between the vocational and the higher education sectors any easier;
- some observers also denounce the excessive industry-oriented nature of the system, while establishing a learning society also involves taking into account individuals' demands and ensuring that students become active citizens.

Such analysis should not lead to the denial of positive aspects of the national qualification movement and the capacity it has demonstrated to place TVE at the top of the policy agenda in countries where the comparative level of qualification and productivity of the workforce were seen as a major challenge. Furthermore, the concepts and principles embodied in the competency-based approach may have tremendous potential to reform process-based systems – evidence of this positive interaction is already clear in the reform of the German dual training, or in the transformation of the institution-based French system. However, there is no evidence that national qualification frameworks have led to an increased participation of individuals in learning throughout life, or that they have improved the functioning of labour markets. Given the still limited experience, the application of this model to other development contexts, with very different, much weaker, educational, economic and institutional environments, may be problematic. This will be illustrated in the following sections.

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[30] Again, this is also the case in England, where certain sectors of industry decided to keep the old vocational qualification on the ground that the NVQ criteria were not specific enough (electrical installation, motor manufacturing).

3.2 Botswana

A comprehensive system of vocational qualifications is being developed in Botswana as a first step towards a national vocational qualification framework. Throughout the process, there is consultation with and involvement of employers and industry at many levels: in the curriculum development process, supporting industrial attachment, in the external verification process, in the external assessment of projects, and as chairpersons and members of the Boards and Committees monitoring the quality assurance and assessment process.

The curriculum development process is monitored by Programme Advisory Committees (PACs), one for each vocational area, to ensure that all programmes meet the requirements of industry (see *Box 2*). PACs give advice to curriculum developers on the content of the new qualifications. The majority of PAC members are employers and industry representatives. The chairpersons and their deputies are industry representatives, while the Ministry of Education, through DVET, forms the secretariat.

Industrial attachment: Employers are also involved in supporting the Work Experience unit, which is mandatory for all revised qualifications. On completion of the unit, candidates are able to (i) demonstrate the development of planning, organizational, interpersonal and problem-solving skills and self-awareness, through work experience with a high degree of tutor support; (ii) contribute to the planning and arrangement of a work-experience placement with tutor support; (iii) carry out allocated tasks during work experience under supervision; (iv) relate effectively to others in planning and undertaking work experience; (v) identify the contribution of the knowledge and skills gained to one's own personal and social development.

***Box 4.* Programme Advisory Committee : Terms of Reference**

- Advise the Director DVET of the suitability and validity of the programme;
- Advise the Director of employee qualifications initially required by industry;
- Act in general as liaison between the Department and Industry;
- Advise the Department on equipment for laboratories and workshops based on current trends;
- Maintain the integration of the practical and theoretical components of the programme, establish strong liaison between these two areas of the programme and ensure the assessment procedures, techniques and modes are rigorous and appropriate;
- Suggest addition or deletion of items in course so that the graduates will be more employable;
- Discuss reports offered by any working committee which may be formed to study aspects of the programme, especially the practical portion and work placements;
- Bring the work of the Department to the attention of employers and employees in industry and suggest arrangements for conducting part-time or co-operative classes;
- Assist the Department in the advertising of programmes and the placement of trainees and graduates;
- Advise on the appropriate number of students to meet employment needs.

Persons who undertake the external verification process include experts from industry and the employment sector. They assist the Quality Assurance and Assessment (QAA) Unit in their capacity as external verifiers by:

- monitoring assessment practice and procedures in an appropriate proportion of instances against awarding-body requirements;
- verifying the quality and consistency of assessors' judgements;
- encouraging centres to observe and maintain good practice by giving positive feedback;
- monitoring assessors and internal verifiers in order that they meet the national standards for assessment and verification;
- providing evidence that the interpretation of national standards within centres is accurate;

- taking action to achieve valid and consistent assessment practice when problems are identified in centres;
- presenting concerns regarding the design and implementation of assessment practices in the centres to the awarding body;
- providing centres and awarding body with clear recommendations for improvements to assessment practices.

Persons who act as external verifiers will also be examiners of the external assessment project. Quality assurance and assessment mechanisms are crucial to the credibility of any examining or awarding body. These procedures are very relevant to establishing the validity and reliability of the qualifications to be certified. The training initiatives for the Botswana Technical Education Programmes prescribe the need for the regulation of assessment, quality assurance and control and certification mechanisms. Assessments, verification and certification are based on defined standards which will supply a clear measure of the performance achieved by candidates. To this end, the Ministry of Education, Botswana, established a Quality Assurance and Assessment Unit which is mandated to provide:

- a clear measure of the standards of performance expected of successful candidates;
- assessment instruments that gather sufficient valid and reliable evidence of ability to perform to the identified standards;
- a quality control system that will ensure the consistent application of standards and assessments over time and, where appropriate, place;
- an administrative system that will support the smooth running of the centres, the programmes, student tracking, quality control and certification.

An amplification of this mandate may be expressed in the roles of the QAA Unit, i.e.:

- validation of the new programmes;
- approval of centres to deliver them;
- registration and enrolment of candidates;
- internal assessment;
- assessment instruments;
- systems support;
- external verification;
- external assessment;

- project;
- grading;
- certification of candidates.

The involvement of employers in the awarding of formal qualifications in the Botswana TVET system also takes the following form. The employers are active members of these structures. *Boxes 5-7* below outline the committee structure for the QAA function. The QAA Unit serves as the secretariat for the Board as well as for the two sub-committees. Two years is the term of office of each of the above-mentioned bodies, with the possibility of members serving a further term. There is provision for some members being replaced either sooner or later than this date in order to ensure continuity and 'hand-over' of expertise.

Box 5. The Board of Management

Purpose

The Board of Management is the overarching committee with responsibility for ensuring that programmes meet the needs of Education and individuals, and that the standards of these awards are maintained through effective assessment and quality assurance arrangements. Its secretariat is the Quality Assurance and Assessment Unit.

Principal tasks

- To monitor and review the overall strategy for the assessment and quality assurance of qualifications.
- To monitor and review systems and procedures underpinning quality assurance and assessment of programmes.
- To make recommendations to the Minister of Education on possible modifications required in quality assurance procedures operated by the QAA Unit.
- To monitor and review the relevance and effectiveness of programmes by receiving reports from the Programme Advisory Committees on programme outcomes, advising the Minister of Education on its findings.
- To assist the QAA Unit in the decision-making process on appeals relating to centre approval and other quality assurance issues.
- To approve appointments to the Quality Assurance and Assessment Sub-Committees and to nominate their chairpersons.

Box 6. The Assessment Sub-Committee

Purpose

The purpose of the Assessment Sub-Committee is to monitor the Quality Assurance and Assessment Unit's arrangements for administering the external final assessment and ensure its effectiveness.

Principal tasks

- To advise the QAA Unit on overall strategies for assessment of programmes including the balance between internal and external assessments and the purposes which they should serve.
- To advise the QAA Unit on the effectiveness of administrative arrangements for administering the external assessment project.
- To monitor the QAA Unit's mechanisms for the management of external assessment, and its quality assurance of internal instruments of assessment, and to notify the Board of any issues or problems arising.
- To ensure that the overall strategies for assessment within the colleges are being observed for each of the new qualifications.
- To advise the QAA Unit on appeals against assessment decisions.
- To advise the QAA Unit on the effectiveness of assessment strategies and make proposals for their improvement.

Box 7. The Quality Assurance Sub-Committee

Purpose

The purpose of the Quality Assurance Sub-Committee is to ensure that the QAA mechanisms are effective.

Principal tasks

- To advise the QAA Unit on strategies for Quality Assurance.
- To advise the QAA Unit on the effectiveness of Quality Assurance systems and procedures and, where appropriate, make proposals for their improvement.
- To monitor the QAA Unit centre's approval procedures and, where appropriate, make proposals for their improvement.
- To monitor the QAA Unit centre's procedures and external verification activities and notify the Board of any problems or issues arising therefrom.
- To monitor the QAA Unit's programme validation activities and notify the Board of any issues arising.
- To offer guidance to the QAA Unit concerning decisions on appeals against validation or verification decisions.
- To request and receive feedback from centres on the effectiveness of the support and guidance offered by the QAA Unit.

3.3 Ghana

The Ghanaian TVET sector is characterized by a multiplicity of testing and certification systems. Standards vary and equivalencies are difficult to establish. Testing and certification systems emphasize written examinations, and practical skills are not adequately assessed. Certificates and diplomas do not assure competence. Unlike the academic education track, the vocational education track does not have a coherent hierarchy of qualifications that facilitates articulation and access to further education and training. Learners are trapped in vocations that do not offer opportunities for higher qualifications and lifelong learning. A national qualification framework is therefore being considered to achieve the following objectives:

- to bring all post-basic occupation-oriented qualifications into a unified qualifications framework;
- to facilitate access to further education and training for individuals in vocational and technical occupations;
- to improve product and service quality by ensuring uniform standards of practice in the trades and professions;
- to promote and facilitate access to lifelong learning for all, especially operators in the informal sector of the economy.

3.3.1 Mechanisms for the establishment of the framework

- enact legislation to establish a single national qualification framework for TVET;
- establish a Ghana National Qualifications Authority to monitor and supervise the implementation of the qualification framework;
- establish Industry Training Advisory Boards (ITABs) which will determine qualifications, competences, and performance criteria for specific skills, trades, and occupations;
- deregulate the assessment and certification (within the national framework).

3.3.2 Structure of the National Qualification Framework

The qualification framework, known as the Ghana National Qualification Framework, shall consist of a single hierarchy of qualifications nationally recognized for employment and further education purposes. Seven levels of qualifications are suggested (subject to review): (1 and 2) Proficiency I (Proficiency assessment only); (3) Certificate I; (4) Certificate II; (5) Diploma; (6) Higher National Diploma; and (7) B.Tech.

There is no fixed entry point; entry point will depend on prior learning. ITABs, acting in collaboration with the Ghana National Qualification Authority, will determine the levels that are applicable to the trade, industry or profession. A Ghana National Qualification Authority (GNQA) would be responsible for quality assurance – through accreditation, registration, and moderation of training providers. The Ghana National Qualification Authority (GNQA) shall be established as an autonomous agency under NCTVET. The overall function of the Authority shall be to register qualifications, monitor, and assure quality.

The specific functions of the Authority shall include:

- registration of qualifications and assessment criteria developed by Industry Training Advisory Boards;
- evaluation of the learning programmes of training providers;
- accreditation and registration of institutions and enterprise-based training providers;
- registration and appointment of assessors and moderators;
- determination of equivalences of certificates, diplomas, and other qualifications;
- ensuring the attainment of internationally comparable standards; maintaining a database of certificates issued.

The GNQA shall perform its quality assurance functions through specific Industry Training Quality Assurance Boards formed by the Authority.

3.3.3 Establish Industry Training Advisory Boards (ITABs)

The skills that industry groups and employers want and the performance standards they expect shall be the foundation of the qualification framework. Accordingly, trade and industry boards shall be formed for the determination of competences and performance standards. The specific functions of the Boards are:

- to define the boundaries of the occupational field and occupational titles within the field;

- to establish competences and standards of performance for specific occupational titles;
- to recommend the registration of qualifications and performance standards to the GNQA;
- to update and review qualification standards from time to time.

Industry Training Advisory Boards may be formed in one of two ways:

- NCOET/NCTVET may initiate the formation of the ITAB for priority growth areas;
- organized industry and trade groups (such as the Ghana Tailors and Dressmakers Association) may apply to NCTVET and be registered to form ITABs.

3.3.4 Deregulate delivery, assessment and certification

Training delivery, assessment, and certification will be deregulated within the national qualification framework. There shall be no fixed national schedules apart from estimated hours for coverage of specific training modules. Training providers shall freely develop their training schedules. The task of the GNQA is to ensure that those awarded qualifications are able to demonstrate the learning outcomes of the qualification. Training and assessment will go hand in hand at the training sites. Accredited training institutions and organizations shall have the responsibility to assess and recommend individuals for certification by the GNQA.

3.4 South Africa

3.4.1 South African Qualification Authority Act[31] (SAQA Act)

The Ministers of Education and Labour are co-responsible for this Act, which sets out to achieve the following objectives:

- to create an integrated national framework for learning achievements;
- to facilitate access to, and mobility and progression within education, training and career paths;

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[31] Detailed information on the South African Qualification Authority is available at www.saqa.org.za.

- to enhance the quality of education and training;
- to accelerate the redress of past unfair discrimination in education, training and employment opportunities;
- to contribute to the full personal development of each learner and the social and economic development of the nation at large.

The achievement of these objectives is the responsibility of the South African Qualification Authority – made up of a Board consisting of representatives of all national education and training interests (including the Departments of Education and Labour, employer organizations, trade union federations and providers) – and an Office. The Board is responsible for overall policy advice to the Ministers, whilst the Office is responsible for the implementation of policy.

Implementation is essentially divided into two sets of activities. The first is the setting and registering of new standards for learning in the country into the National Qualification Framework (NQF). The second, is ensuring that the standards set are quality assured.

3.4.2 Setting standards

The National Qualification is a grid of 12 pathways and 8 levels into which learning outcomes – in the form of qualifications or unit standards – are registered and against which their quality is assured.

The eight levels stretch from level 1 – an open-level equivalent to the exit level of compulsory schooling after 9 years – to level 8, which is equivalent to postgraduate doctorates and masters. Level 4 is equivalent to the traditional school-leaving level (12 years of schooling) and the level at which most craft qualifications are to be registered. This is illustrated in *Box 6*. It will be noted that there are three broad 'bands' that make up the NQF – the general education band (up to and including level 1), the further education and training band (levels 2 to 4) and the higher education and training band (levels 5 to 8).

***Box 8*. South African National Qualification Framework**

NQF level	Band	Qualification type
8	Higher Education and Training	Post-doctoral research degrees, Doctorates, Masters degrees
7		Professional qualifications, Honours degrees
6		National first degrees, Higher diplomas
5		National diplomas, National certificates
Further Education and Training Certificate (FETC)		
4	Further Education and Training	National certificates (4)
3		Senior secondary school leaving (matriculation)
2		and Trade
General Education and Training Certificate (GETC)		
1	General Education and Training	Grade 9 I ABET Level 4 National certificates

Twelve learning or career pathways, based on twelve organizing fields, overlay the framework vertically. Each one may consist of a set of standards and qualifications across levels 1 to 8.

There is no sharp distinction between technical and vocational training, on the one hand, and 'general education' on the other. The framework embraces both.

SAQA has established 12 National Standards Bodies (NSBs) – one National Standards Body (NSB) to oversee the work for each learning field.

An NSB is a committee of stakeholders – employers, trade unionists, providers, government, community and special interest groups (such as professional bodies). Membership is by nomination from recognized national organizations and confirmation by the SAQA Board.

The functions of NSBs include the following:

- defining and recommending to SAQA the boundaries of the field and, within this, a framework of sub-fields;

- recognizing or establishing Standard Generating Bodies (SGBs) within the framework of sub-fields, and ensuring that the work of the SGBs meets SAQA requirements;
- recommending the registration of qualifications and standards to SAQA;
- overseeing the update and review of qualifications and standards;
- liaising with ETQAs (see below);
- defining requirements and mechanisms for the moderation of standards and qualifications.

NSBs do not generate standards or qualifications, but rather oversee these activities at the sub-field level. Standards and qualifications are actually generated by Standards Generating Groups (SGBs). The functions of SGBs include the following:

- generating standards and qualifications in accordance with the Authority requirements in identified sub-fields and levels;
- updating and reviewing standards;
- recommending standards and qualifications to NSBs;
- recommending criteria for the registration of assessors and moderators or moderating bodies.

Standard Generating Bodies are groups of stakeholders who are judged by SAQA to be sufficiently representative of the sub-field for which they are to set the standards. Their membership is secured through public advertisement and networking. They are frequently initiated by the stakeholders themselves – who then approach the NSB for registration. This process is intended to ensure that parallel initiatives are kept to a minimum and that the NQF as a whole retains its coherence and continues to serve its purposes of mobility and progression. Wherever possible, both traditional 'education' interests as well as traditional 'training' interests are included on to SGBs to ensure cross-fertilization of ideas and maximum mobility for learners.

The impetus for standard setting is expected to come from social partners with specific social or economic needs. Insofar as the identification of economic and social development needs are concerned, the Sector Education and Training Authorities are expected to take the lead.

3.4.3 Progress as at May 2001

Progress was initially slow, due to the necessity to define altogether new rules and procedures for a new organization. However, momentum is building up and to date there have been 80 SGBs registered. Some 6,500 existing qualifications have been interimly registered and a total of 41 new full qualifications and 679 new unit standards have been fully registered. Many of these would, in other systems, be described as 'vocational and technical'.[32] SAQA has recommended to the two Ministers a new 'architecture' for level 1 (equivalent to 9 years of schooling) and level 4 qualifications (equivalent to 12 years of schooling). The Level 1 qualification is called the General Education and Training Certificate and Level 4 is the Further Education and Training Certificate. It is intended that a single qualification title flexibly embraces traditional 'academic' as well as 'trade' qualifications – where there is a fundamental component, a core component and an elective component. The actual combination of subjects is driven by the particular purpose(s) which the qualification is meant to serve.

3.5 Lessons

- Increasingly, national qualification frameworks are seen in English-speaking sub-Saharan countries, particularly in Southern Africa, as important instruments to reform TVE.
- This trend seems to indicate an increasing degree of policy convergence in TVE, particularly in SADC countries.
- For SADC, the development of compatible national qualification frameworks is viewed as an important element to increase the competitiveness of the sub-region and contribute to further economic and labour market integration.
- However, implementation is only beginning in the sub-region, with very little empirical-based knowledge.
- This attraction for an outcome-based model largely reflects the adherence to a broader market-oriented policy agenda.
- It can also express, as in South Africa, the wish to break with the past and to dissolve the educational and occupational segmentation inherited from the former apartheid regime into a new national, integrated system.

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[32] Verbal report from SAQA staff, 4 May 2001.

- It should be noted that the concept of national qualification frameworks lies on the assumption that the primary responsibility for training must rest with individuals rather than governments, the relevance of such principle for countries with still low enrolment levels is debatable.
- Similarly, the principle of outcome-oriented systems emerged in societies where the main problem was no longer perceived to be delivery, but assessment; whether such a shift is relevant in environments in which the major issue is still a lack of access, rather than a lack of assessment for existing knowledge, is questionable.
- Finally, it should be stressed that the current trend of 'policy borrowing' appears potentially problematic at a stage where NQF are still experimental, as reflected in the fact that very little is known about the costs associated with developing qualification criteria, assessment and certification procedures, and about impact. The South Africa experience shows that it can be a very complex, relatively bureaucratic and slow process. Furthermore, the relative complexity of the reform may jeopardize its effective implementation in contexts where institutional capacities are much weaker.

4. Financing

4.1 Issues at stake

The financing of TVE is often more complex than for general education. More diversified target groups, greater involvement of employers, greater scope for introducing market-oriented mechanisms, richer prospects for developing income-generating activities at the institution level are some of the features of financing settings for TVE. Although this is not an area where the innovations are as significant and numerous as in the previously discussed policy areas, some new trends can also be identified, particularly:

- the increasing financial autonomy granted to TVE institutions (Kenya);
- the shift from a classical input-based approach to an outcome-related model of funding (South Africa);
- the introduction of a levy to finance initial vocational education (Tanzania).

Although job-related training is not the focus of this report, the section on South Africa also provides some information on the implementation of the levy-based system recently implemented to finance training.

4.2 Kenya

As a general policy most TVT institutions are public institutions managed by boards of governors or trustees on behalf of the government. In Kenya, national polytechnics and technical training institutes were fully funded by the government until recently. Youth polytechnics and institutes of technology started out as private community-sponsored institutions with little help from the government. Over time, government support has declined to the extent where the TVT institutions are largely dependent on tuition fees from students, with government support limited to lecturers' salaries (see *Table 27*). This has raised the unit cost of TVET in Kenya to a level which most parents or guardians can no longer afford.

Table 27. TVET institutions' income 1998-1999

	1998				1999			
Institutions	**Total KShs**	**Fees %**	*****	******	**Total KShs**	**Fees %**	*** %**	**** %**
Bumbe TTI	1,377	61	38	1	1,811	58	32	0
Coast IT	6,769	75	1	17	6,287	99	1	0
Eldoret Poly.	13,765	51	45	4	22,342	38	19	42
Gusii IT	4,098	98	2	0	8,366	93	0	0
Kabete TTI	68,100	49	50	0	41,952	95	1	4
Kaiboi	1,546	61	38	1	1,546	61	38	1
Kaimosi CRT	5,191	96	1	3	4,340	89	0	9
Kangema TTI	3,661	72	16	1	3,968	79	15	0
Karen Deaf TI	3,655	18	1	31	1,667	64	32	0
Kenya Poly.	75,100	57	19	20	144,107	36	13	41
Kiambu IST	20,980	86	1	10	20,980	86	1	10
Kimathi IT	8,262	97	1	0	9,441	99	0	0
Kirinyaga TTI	8,882	91	1	0	14,024	79	1	3
Kinyanjui TTI	2,562	53	21	0	1,939	69	31	0
Kisumu Poly.	23,066	78	11	11	37,272	64	9	17
Kitale TTI	13,169	85	3	10	16,162	94	2	3
Machakos TTI	1,621	28	35	37	43,775	71	1	6
Masaai TTI	5,535	82	10	2	4,599	63	12	2
Mathenge TTI	1,879	72	1	2	5,181	88	1	7
Mawego TTI	5,578	85	10	0	8,247	86	9	0
Meru CT	3,005	99	1	0	14,915	100	0	0
Meru TTI	11,800	83	4	8	12,531	65	5	3
Moi IT	5,484	69	2	2	10,681	77	0	2
Mombasa TTI	5,235	66	9	26	7,733	54	10	31
Muranga CT	35,422	39	57	1	14,524	89	0	7
Nairobi TTI	21,100	64	17	19	20,044	35	2	62
NEP TTI	2,476	41	25	33	3,609	47	27	8
Nkabune TTI	9,231	83	6	10	6,016	87	10	0
Nyeri TTI	17,313	82	3	15	19,380	82	3	11
Ol lessos TTI	443	21	75	0	771	25	69	2
RIAT.	10,049	83	2	15	13,048	95	1	4
RVTTI ELD.	9,233	98	1	0	21,801	47	3	0
RVIST NKU.	62,912	42	53	0	28,631	90	1	0
Rwika CT	6,359	82	1	15	6,583	90	1	
Sangalo IST	3,599	97	2	2	18	0	100	0
Siaya IT	1,052	86	3	11	4,723	40	1	55
Sigalagala TTI	5,886	56	1	43	12,565	95	4	0
Thika TTI	4,558	88	12	0	4,558	88	12	0
WECO.	7,543	82	1	14	7,543	82	1	14

* Government contribution. ** Own contribution.

Own contributions come mainly from income-generating units/activities and grants from donors and sponsors.

Acronyms used in the above *Table 27*:

IST	Institute of Science and Technology
IT	Institute of Technology
NEP	North Eastern Province
Poly	Polytechnic
RIAT	Ramogi Institute of Applied Technology
RVISTNKU	Rift Valley Institute of Science and Technology, Nakuru
RVTTI ELD	Rift Valley Technical Training Institute, Eldoret
TTI	Technical Training Institute
WECO	Western College of Applied Sciences and Technology

Source: Vocational Training Project, GTZ and Government of Kenya, 1999.

The TVET institutions have over the past decade operated under severe financial constraints. Costs have been on the increase and, as such, only a minimum number of staff have been deployed by the respective Boards of Governors (BOG). The BOG staff takes around 25 per cent of the total expenditure/cost, with minimal expenditure on repair and maintenance. Institutional expenditure is much higher than income, leading to outstanding debts.

Quite often, the institutions are left on their own to finance the debts. Attempts are often made to do so from fees and income-generating outputs, but with little success. Interestingly, the indebted institutions do not often close. They carry on the burden, thus compromising the quality and relevance of their programmes.

The total costs per student per year averages Kshs. 22,000 excluding salaries for government-sponsored teachers. When this is included, the total cost per student rises to Kshs. 70,000.

Table 28. Unit cost in selected TVET institutions

Institutions	Total cost		Cost per student				Annual fees per student	
			Institutional cost		Total cost			
	1998	1999	1998	1999	1998	1999	1998	1999
BUMBE TTI	9,645,620	6,438,769	19,565	30,727	94.6565	120,727	22,400	21,000
NEP TTI	8,685,959	8,004,148	19,559	29,338	167,038	109,147	22,050	22,900
KITALE TTI	36,239,656	25,707,024	32,664	23,393	82,550	39,938	19810	27,960
NAIROBI TT	34,072,443	44,190,026	19,559	27,547	36,875	46,565	21,700	6,300
MOMBASA TT	19,913,430	18,232,508	9,693	16,749	28,246	39,493	11,000	8,400
WECO IT	18,251,368	18,251,369	20,499	21,543	49,151	51,655	24,815	24,815
SAN'GALO IT	11,873,642	*	34,349	*	69,437	*	29,550	30,000
RVIST IT	22,322,233	26,134,483	20,630	27,645	48,108	52,797	25,800	26,550
KIST IT	42,300,000	42,300,000	30,571	48,519	47,368	75,178	9,300	9,300
COAST IT	*	14,069,357	*	42,259	*	76,882	37,216	34,176
GUSII IT	13,895,226	16.816,663	9,866	27,971	24,947	53,049	24,000	21,600
MERU IT	44,604,930	23,438,90	30,740	31,950	124,595	57,215	24,500	23,700
KENYA POLY	160,700,000	209,951,945	19,833	39,314	39,939	63,971	20,870	4,570
MOMBASA POLY	*	119,731,133	*	33,504	*	51,409	11,000	42,135
KISUMU POLY	45,305,841	53,561,557	14,915	24,398	26,423	36,288	30,300	33,450
ELDORET POLY	32,113,836	36,307,816	47,330	39,584	73,882	63,549	19,900	27,000

* Missing data

Source: Vocational Training Project, GTZ and Government of Kenya, 1999.

It can be observed from *Table 28* that institutional cost per student has not varied much from the annual fees charged per student. Furthermore, the annual fees charged are not significantly different from the fees paid in national and provincial secondary schools. However, without any other support the total cost per student is prohibitive. This explains the indebtedness and the use of outmoded equipment and facilities, on the one hand, and the dwindling enrolments, on the other.

The Kenya context reflects the scope but also the limits of institution financial autonomy. While income-generating activities, including fees, can represent a useful complementary source of funding, they cannot substitute government support. Otherwise, the balance takes the form of reduced training quality.

4.3 South Africa

4.3.1 Funding technical college education

The funding issue for technical colleges cannot be dissociated from the specific history of the South Africa education system. Among the 152 technical colleges, 46 per cent of technical colleges are state-aided (historically white) and 54 per cent are state colleges.

The financing and financial management of state colleges differ from that of state-aided colleges. The state pays all operating costs for state colleges, provides accommodation and equipment, undertakes all maintenance, prescribes tuition fees which are paid into the State Revenue Fund, controls the college budget, and prescribes financial policy. The lump-sum budget was derived from a 'needs analysis' – essentially a negotiation between the college and the state. And whilst these colleges charge students fees – the fees have to be paid over to state coffers – they have no discretion on their spending, even though it was intended that the funds should be returned to colleges. Even when the funds were returned to the colleges, the colleges were tied to very strict state procurement procedures on their expenditure. They therefore have very little discretion on its use.

State-aided colleges, on the other hand, are subsidized according to a formula based on full-time equivalent enrolments (FTEs). State-aided colleges were allocated a lump sum calculated on a formula whose inputs were principally the number of full-time equivalent students enrolled. The calculation was weighted to ensure that smaller colleges received sufficient funds for their operational costs. The staff establishment was not included in this allocation. The staffing requirements of each college were determined centrally (after discussion with the colleges), and each college was then allocated the budget for a fixed number of posts described in terms of the state grading system and a standard pay structure. The college then had discretion as to whether or not to fill these posts permanently, or to fill them with contract or part-time posts. In addition to these posts, the state-aided colleges could then use any additional money received from student fees, sale of services and grants, to fund additional posts over which they and their governing bodies had complete discretion. The Councils determine tuition fees, and colleges are at liberty to raise additional funds and donations. State-aided colleges have control over their budgets, expenditure, and investments, and operate their own bank accounts with the principal as the accounting officer. Personnel administration also differs between state and state-aided colleges. Whilst the Minister appoints, promotes, and seconds staff in state colleges, the College Council fulfils these functions in state-aided colleges. Unlike state colleges, the Councils of state-aided institutions are empowered to appoint college staff directly from college funds.

An increasing body of literature describes the technical college sector as being inadequately funded and highly inefficient (Lumby, 2000). A recent study published by IDASA (Wildeman, 2001) provided the following observation: "technical colleges have been plagued by problems related to the relevance of programme offerings, output, management capacity, and the absence of reliable management information systems. It is not difficult to see why both public and private contributions have been slow in funding these institutions. These problems should however not obscure the key role that technical colleges could and should play in the government's human resources development strategy. The sustainability of funding for technical colleges is clearly related to its institutional and management problems. Therefore additional funds should be allocated to deal with these capacity problems". Yet even if the funding problems of this sector are dealt with, its relatively small size limits its potential contribution to mass skills development, as *Table 29* indicates:

Table 29. Technical colleges as a percentage of total provincial education budgets

Year	**1999/2000**	**2000/2001**	**2001/2002**	**2002/2003**	**2003/2004**
Total	1.9%	2.0%	2.0%	2.0%	2.1%

Source: Provincial estimate of expenditure, 2001, http://www.idasa.org.za/bis.

A study undertaken in 1998 by the National Business Initiative (NBI) revealed high variations in provincial unit cost, ranging from less than R5,000 in Gauteng to more than R8,000 in the Northern Cape. The national average was R6,500. Considerable differences exit also regarding efficiency. It was estimated that only 36 per cent of candidates were successful in the Northern Cap as compared to 56 per cent in the Eastern Cap (the highest ratio). In 1998, 46 per cent of the total budget allocated to technical colleges was 'wasted' in providing training to unsuccessful candidates.

In a study conducted by the World Bank in partnership with the UniCity of Johannesburg (the local government authority)[33] it was found that there is generally distrust of government institutes (except for technikons which enjoy relatively higher regard) by the private sector. Over 70 per cent of large firms indicated a strong preference for private training institutions, with only per cent indicating government training institutions (technical colleges) as being important or moderately important. When it comes to small firms, about 70 per cent indicated they prefer in-house training, and under 20 per cent saw government institutions as important or moderately important. In both cases technikons appear to be the exception, rated over 50 per cent by both large and small firms.

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33. This study is as yet unpublished and the figures are derived from a presentation to the Department of Labour on 5 March 2001. Copies of the study to be shortly available by the UniCity of Johannesburg.

4.3.2 Towards a new funding strategy for technical colleges and the further education and training sector

During the process that led up to the passing of the Further Education and Training Act in 1998, there were many discussions about the most appropriate way to fund future Further Education and Training Institutions (FETIs). On the question of whether or not FETIs could be 'employers', the state, rather than the state-aided model was adopted. In terms of the FET Act, FETIs cannot be employers. The provincial education administration will allocate them a fixed number of posts, with prescribed levels and pay structure. It was agreed that the model's implementation would be monitored, and, if necessary, changed as experience dictated.

However, the 'lump sum' allocation will probably be divided into two components – a larger proportion will be based on a programme funding approach, in terms of which identified priority programmes will receive higher allocations than those assessed to be of a lower priority. The formula will then be translated into a cost per FTE student enrolled.

The second portion of the funding will be calculated on outputs: for example if colleges improve their pass and placement rates they will get additional funding. The formula shall also include an index to promote equity and compensate individuals for certain disadvantages (socio-economic background, disability…).

In view of improving quality of outcomes, the funding strategy shall provide incentives to reward institutions that are moving to greater cost-effectiveness. The capacity of institutions to respond to the needs of the labour market shall also be a criterion for funding.

The strategy developed to design for the output-related funding scheme takes into account the planned rationalization of the college sector, including the merging of a number of institutions. The new formulae will be needed for the emerging structure of technical colleges. A task team shall be appointed and submit terms of reference by the end of October 2001.

4.3.3 Financing vocational training

The Skills Development Act and the Skills Development Levies Act evolved from the National Training Strategy Initiative (NTSI) report of the National Training Board published in April 1994. The delay in implementation was caused by two factors: firstly the need to establish an altogether new Department of Labour with new structures and new personnel; and secondly the need to first resolve the funding questions which were not resolved by the National Training Board.

The strengths and weaknesses of various funding mechanisms were investigated drawing on both local and international experience: levy on payroll or on turnover, tax incentive, budgetary appropriations, fees, company expenditure. On balance the levy-grant system was recommended, for which the following strengths and weaknesses were identified:

Summary of the strengths and weaknesses of levy-grant and exemption schemes:

Strengths

- both diversity the funding base for VET;
- both induce firms to invest in their own training capacity and programmes, although the levy-exemption offers a relatively stronger incentive for this than do levy-grant schemes;
- to varying degrees both tend to locate training decisions with the beneficiaries of VET;
- both facilitate the development of competitive training markets by locating training decisions with firms which have a variety of training needs to which a diverse training market can effectively respond.

Weaknesses

- if the eligibility criteria and administrative procedures for exemption and grants, or the allocation of functions to public agencies responsible for administering these schemes, are incorrectly determined then this distorts the purpose of these funding mechanisms;
- an effective levy-exemption scheme has limited revenue-raising capacity for the targeting of training revenues towards national or sectoral goals, or for conducting more general active labour market policies;
- the cost burden of all levy schemes falls on enterprises or their workers;
- the supervision requirements are relatively high, to ensure that VET exempted under the scheme is actually carried out and according to the eligibility criteria specified;

- these schemes tend to discriminate against small firms, since they are the least likely to be able to conduct eligible training, and therefore end up with lower probabilities of being exempted or receiving grants than other firms.[34]

This recommendation was eventually adopted on the basis of the argument that South Africa's skills shortage was so severe that market forces could not be expected to overcome the problem quickly enough. And in February 1998, employers, trade unions, community representatives and government all unanimously agreed to the implementation of a compulsory 1 per cent payroll levy.

There was, however, no agreement on a second point, and that was that there should be a 20 per cent 'top-slice' of the levy to secure funds to address the need for cross-subsidization, both for poverty alleviation and for those areas of economic growth which had insufficient funds to resource the required skill expansion. Employers argued that this should be funded from the fiscus. Nevertheless government, trade unions and community agreed on this formulation and the matter was politically settled.

With this matter resolved, the way was clear for the legislation to be drafted, passed and enacted. This was done in November 1998 and in February 1999.

The National Skills Fund is resourced from a 20 per cent top-slice of the skills development levy. It is a vehicle for cross-subsidization from the formal to the informal sector, from the employed to the unemployed, and from declining to growing industries. Funds from the National Skills Fund are to be disbursed through three channels: from the National Department of Labour, from Sector Education and Training Authorities and from the Provincial Offices of the Department of Labour.

Each is outlined below:

- The National Department of Labour will be responsible for disbursing funds for the capacity building of stakeholders to participate in the various skills development committees, projects and initiatives and for projects linked to new investment initiatives (in partnership with the Department of Trade and Industry).

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[34] National Training Board (1997:19).

- The 25 Sector Education and Training Authorities have each been presented with an overview of government's economic and employment growth and social development strategies. They have each been requested to identify which of the strategies they could contribute to by way of skills development, and then to put forward major project proposals to achieve this end. The first round of 'concept documents' are expected by the end of May 2001. These projects will principally target small formal- and informal-sector firms in the industry such as musicians, craft-workers and performers in the cultural industries, domestic workers in the services sector, small farmers who have recently been allocated land under the government's land reform programme and so on. These projects will offer particularly challenging opportunities to providers – which have traditionally served large formal-sector firms only.

The Skills Development Levies Act introduced a 1 per cent payroll tax on all private-sector firms. The public sector is required to budget at least an equivalent amount for training of its staff.

Levy money is collected by the South African Revenue Service and then transferred to the Department of Labour. Together with the funds a detailed description of exactly which firms paid what is conveyed. The Department of Labour then transfers the funds (less the 20 per cent for the National Skills Fund) to the SETAs. Each SETA gets the contribution of those firms which are associated with it. It is allowed, by regulation, to use up to 10 per cent of the money collected for its administration. The remaining funds must be used for grants to firms.

SETA grants: There are two kinds of grants that a SETA can make – discretionary and non-discretionary:

- *Non-discretionary grants:* If a firm in the sector submits a Workplace Skills Plan (WSP)[35] and a report on the implementation of that Plan to the SETA, then it qualifies for a grant of 15 per cent of levy paid (for the plan) and 50 per cent (for the report) which the SETA must pay (provided requirements and time-frames are met). The intention of this WSP grant is to give an incentive to firms to take training of staff seriously and, hopefully, by stimulating the demand for training, create a better market in which the restructuring of technical colleges can take place. Any training at all can be included in the plan – it is fully a company decision, although not just that of the employers (a regulation requires them to consult with their trade-union partners where the workplace is organized). In time it is planned to introduce a voluntary quality standard for Workplace Skills Plans – and the UK-based Investors In People standard is being piloted for this purpose. Pilot firms will be selected and work begins in 2001.

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[35] A Workplace Skills Plan is a plan which outlines priority skills to be delivered during that year and the proposed beneficiaries of that training broken down by race, gender and disability. External SAQA quality assurance of the training is encouraged but not required.

- *Discretionary grants:* If a firm enters a learnership contract with a learner or acts in a way which supports strategic priorities set by the SETA (SETA decides), then it may qualify for additional grants not linked to the amount of levy it paid. Learnership grants consist of two parts – a component to compensate the employer for the cost of training, and a contribution to the learner's allowance. Such grants are conditional on the availability of funds and the strategic priorities of the SETA and hence are at the discretion of the SETA. Apprenticeship grants will also be paid on this basis.

Progress as at May 2001: The NSF has been established and launched by the Minister of Labour. The NSA has recommended to the Minister that the funds be used for the skills development component of major projects linked either to *local* economic development or to *national* projects initiated by national government departments or social partners in support of government's economic and employment growth and social development plans. Local projects are already being funded and each sector has been requested to submit a major project proposal linked to a growth or development strategy by May 2001. Once funds have been allocated, monitoring and evaluation will take place by the Department of Labour. Three such projects have already been identified: one for the domestic workers, one for cultural workers and one for farmers recently allocated land under the government's land restitution programme. Within these projects special attention will be paid to small business promotion and to new entrants to the labour market.

Nearly all SETAs have begun paying out workplace skills plan grants. The regulations for learnerships grants were published in April 2001. A full assessment of total grants paid out will only be available once their first annual reports are submitted for their first financial year April 2000 to March 2001. The reports were expected in July 2001. However, available information is that 224,965 businesses were registered with the South African Revenue Services for the payment of the skills development levy and between April 2000 to February 2001 a total of R800 million had been collected. The top 10 per cent of firms pay 85 per cent of the levy.

4.4 *Tanzania*

The Vocational Education and Training Authority (VETA) was established in an effort to improve the delivery, financing and flexibility of vocational education. The introduction of a training levy of 2 per cent of gross payroll for all enterprises was meant to ensure the sustainability of training provision and greater involvement of industry.

The total expenditure by VETA in 1999 was Tshs. 5,747,552 and the contributions by the financiers were as follows (Nyambo, 2001):

• Employers (VET levy)	70%
• The government	–
• Donors	16%
• The training centres	10%
• Parents/Trainees (fees)	4%

Funds could be collected by VETA, but currently this is done by the National Social Security Fund (NSSF). VETA has opened accounts in different banks in the country. NSSF has instructed the banks to transfer the funds to a common account accessible by VETA. Then, VETA allocates the money to regional VET boards which, in turn, distribute it among regional training centres.

The levy represents a major source of funding for vocational education. It generates 70 per cent of the VETA annual budget.

It also allows a high level of subsidization of training cost, as reflected below:

Annual training cost per trainee:

- Boarding – Tshs. 650,000/= (US$700)
  Charged fees – Tshs. 90,000/= (US$100)
- Day trainees – Tshs. 450,000/= (US$500)
  Charged fees – Tshs. 45,000/ = (US$50).

Although it has been financially productive, the implementation of the levy currently faces a number of problems, including (Nyambo, 2001):

- Poor collection is a major issue, as reflected in the 80 per cent defaulters. Collection in 1999 totalled Tshs. 5.17 billion (US$ 6,500,000), instead of the targeted Tshs. 24 billion (US$ 30,000,000). However, some donors threatened to pull out if VETA decided to collect the levy directly, on the basis that it may be counterproductive. It was decided to increase the commission paid to the agent to 7.5 per cent (compared to initially 5 per cent) as an incentive to improve collection.
- Many employers are fighting against it because they consider that they receive no service in return. VETA is finding it difficult to provide service to the employers in return for the levy they pay because of several reasons, including insufficient training capacity, or lack of relevance of training offered.
- Misdirection of the levy: VETA-owned centres, representing about 4,000 graduates, benefit from all the levy, while other providers, representing about 60,000 people trained, do not receive any share. This imbalance results in VETA centres being better funded than the other providers, who often offer poor-quality training. In addition, donor support has brought a lot of positive change in public training institutions. Assistance was concentrated in few training centres, therefore the training facilities of those centres and their standard were much better than all other institutions. Several donors are now asking VETA to withdraw from training provision.

There are clear signs that the 1994 reform of the TVE system in Tanzania, through the establishment of the Authority and the levy, has not yet met the expectations. Gaining employers' confidence, revising the management pattern of public provision and ensuring that other providers can benefit from the levy are probably required to establish and sustain the cost-effectiveness of the funding system.

4.5 Lessons

- The introduction of a training levy constitutes a significant trend (possibly Botswana, effective in Malawi, Mauritius, South Africa, Tanzania, envisaged in Lesotho).
- Although usually meant to support job-related training, including on-the-job, the levy is also used in certain countries to fund initial vocational education (Tanzania but also Mauritius).

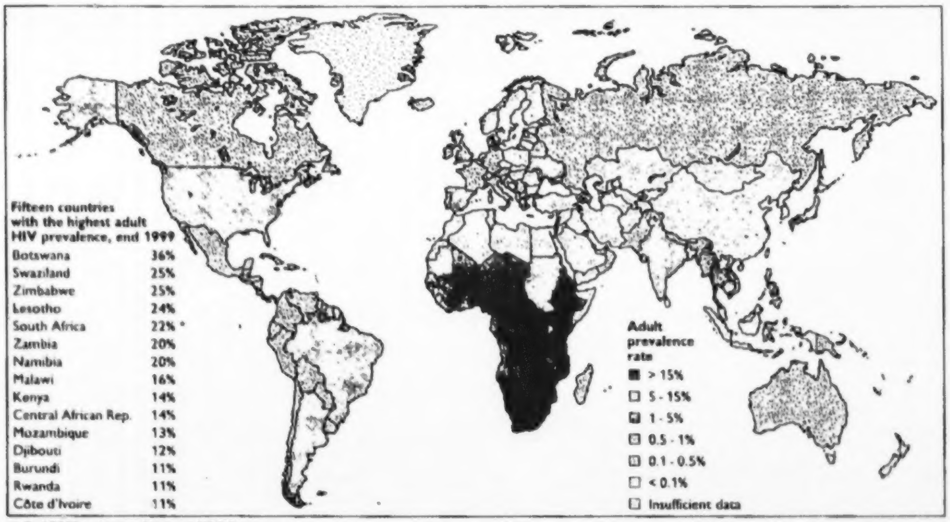
- The Tanzania experience is facing major deficiencies, due to both the design of the system and its implementation.
- As already experienced by many other countries, the situation faced by Tanzania reflects a basic principle that employers' support is a prerequisite for a successful implementation of the system.
- The process followed in South Africa reflects a high level of consultation and partnership; however, there are still concerns within industry about the unintended effects of the levy on labour cost and therefore on employment. This was recently acknowledged by the President, who promised a review of all labour laws.
- On the same issue, it should be noted that in Lesotho, the once-considered levy system is frozen due to strong resistance from the, mainly foreign-owned, industry.
- In the field of technical and vocational education, as part of the education system, the strategy followed in South Africa for establishing a formula funding scheme reflects a broader international trend towards output-related funding in TVE. This will be quite an innovative and potentially productive reform and, as such, will deserve particular attention.
- Besides macro-level responses, the signal is being given almost everywhere to promote income-generating activities at the institution level. This trend is convergent with observations made in French-speaking countries. While the rationale is sound, its implementation requires adequate monitoring and should be viewed within the framework of funding diversification rather than in a government subsidies-substitution perspective.

5. HIV/AIDS: implications for TVE

5.1 The threat

HIV/AIDS is threatening development progress in many developing countries, particularly in sub-Saharan Africa. One of the effects of the pandemic is the weakening of education and training systems. AIDS affects both the provision of education services, through increasing teacher mortality and sickness, and the enrolment trends, as a result of rising learners' infection. Although the impact of the disease on the labour market is still poorly documented, it is expected to first affect the productivity and availability of labour. The anticipated drop in the rate of economic growth shall eventually reduce job creation and hence further aggravate youth employment prospects.

Information collected in French-speaking Africa did not show any specific concern to take into account AIDS in TVE policy and provision. The situation is quite different in Southern Africa, as described below. This variation is probably due to disparities in the incidence of the disease across Africa (see map).


Fifteen countries with the highest adult HIV prevalence, end 1999
Botswana 36%
Swaziland 25%
Zimbabwe 25%
Lesotho 24%
South Africa 22% *
Zambia 20%
Namibia 20%
Malawi 16%
Kenya 14%
Central African Rep. 14%
Mozambique 13%
Djibouti 12%
Burundi 11%
Rwanda 11%
Côte d'Ivoire 11%
Adult prevalence rate
■ > 15%
☐ 5 - 15%
▨ 1 - 5%
▨ 0.5 - 1%
▨ 0.1 - 0.5%
☐ < 0.1%
☐ Insufficient data

* *End 2000 estimates; National AIDS Programme*

Source: UNAIDS, http://www.unaids.org/UNGASS/leadership/English/Maps_en.pdf

5.2 *Botswana*

Botswana is one of the countries hardest hit by the HIV/AIDS scourge, in the world as well as in the Southern Africa region. The country tops the list within the Southern Africa region, with 36 per cent of the prevalence rate, followed by Zimbabwe and Swaziland with 25 per cent for each country. The HIV prevalence rates are as shown below. A high HIV prevalence rate in Botswana is causing "untold human sufferings, deepening poverty, social dislocation and economic hardship." (UNDP, 2000:9). This has therefore led to Botswana losing its number 71 position in the 1996 Human Development Index, ranking to 174th position in 1999.

According to Ministry of Education policy on HIV/AIDS, the role of the Ministry is to focus on integrating HIV/AIDS education in the curriculum at all levels of education, involving parents in the discussion of school-based HIV/AIDS education, among other matters. With all the good intentions, the Ministry is still facing a serious challenge in dealing with the HIV/AIDS impact on children of school-going age. The HIV prevalence rate among the 15-24 year olds is particularly alarming.

It is estimated that about 45 per cent of the 1.6 million people living in Botswana are in the sexually active bracket of 15-49 years (UNDP report, 2000). This places the education sector in a vulnerable position with regard to the HIV/AIDS epidemic. Vulnerability to infection is experienced more by girls and young women than by boys, as reflected in *Table 30*. This could be attributed to the fact that there are gender inequalities in Botswana, resulting in a situation whereby "men generally control the sexual decision-making (UNDP, 2000:32)." There is an indication that children are exposed to sexual activities at an early age. The mean age of sexual debut is about 16 years, while the mean age of first marriage is about 26 years. This could imply that before people get married they might have had multiple sexual partners. Gender inequalities are common in the sub-Saharan region, as shown by studies in countries such as Zambia and Zimbabwe where there has been "a link to women's relative powerlessness in negotiating terms on which they have sex".

Table 30. Percentage of 15-24 year olds living with HIV/AIDS in the Southern Africa region

Country	**Female**	**Male**
Botswana	34	16
Lesotho	26	12
South Africa	25	11
Zimbabwe	25	11
Namibia	20	9.1
Zambia	18	8.2
Malawi	15	7.0
Central African Republic	15	6.9
Mozambique	14	6.7
Kenya	13	6.4

Source: Botswana Human Development Report 2000.

HIV/AIDS has had an impact on the education system in Botswana. It is obvious that "Current HIV/AIDS prevalence rates and the high incidences of morbidity and mortality suggest that HIV/AIDS is already part of everyday experience of many school-going children (UNDP, 2000:28)." Therefore HIV/AIDS could be seen as one of the factors leading to increased absenteeism, drop-out and poor performance in all training institutions, including technical and vocational training institutions. One could safely suggest that the impact of HIV/AIDS in education is general and affects the system at all levels, that is, from pre-school, primary, secondary to tertiary level. Although studies have not been carried out yet on the impact of the disease with specific reference to technical and vocational education and training, research has shown that in Secondary and Tertiary institutions students are already dying of AIDS (UNDP, 2000:22). An increase in the death rate of both primary and secondary teachers has been observed. In 1994, a total of 8 teachers died, while in 1999 the figure increased to 84 teachers. An analysis of the data on primary teachers' mortality rate reflects "a 60 per cent annual increase in mortality among teachers (UNDP, 2000:22)".

The Government of Botswana acknowledged the national crisis caused by the outbreak of the HIV/AIDS epidemic and came up with a National Policy on HIV/AIDS in 1993 (later revised in 1998) to try and halt the spread of the disease. The policy on HIV/AIDS emphasized the need for a multisectoral national response allowing each Ministry and other sectors of the society to "develop and implement their own HIV/AIDS prevention activities (Republic of Botswana, 1998)." Among other initiatives, the Ministry of Finance and Development Planning announced through the 2001 budget speech that "…The National Aids Coordinating Agency (NACA) is in the process of developing a comprehensive National HIV/AIDS Care and Prevention Plan, which will be completed by the end of May 2001. This Plan will also incorporate the Bill and Melinda Gates Foundation and the Merck & Company Partnership assistance, which entails a contribution of US$100 million over a period of 5 years to finance HIV/AIDS activities in Botswana. Under another partnership, with the Baylor College of Medicine and Bristol-Myers Squibb company, whose contribution is US$9.7 million, a children's clinical centre of excellence, with emphasis on HIV/AIDS paediatric care, will be constructed, commencing during the 2001/2002 financial year (Republic of Botswana, 2001)."

The objectives of the HIV/AIDS Children's clinical centre of excellence include, *inter alia*, enhancing practices of health professionals through education and training and improving care and treatment of HIV/AIDS-infected infants and children. A pilot community project in Tutume, Kasane, Mochudi and Gaborone was started in January 2001 to disseminate information and provide counselling to households and individuals who are affected by HIV/AIDS (Budget speech 2001).

The Government of Botswana is considering the possibility of making the anti-retroviral drugs available during the course of 2001 to citizens who are infected with HIV. In order to make the drugs available, negotiations are being made to attract anti-retroviral drug companies such as the Bristol-Myers Squibb of the USA to establish themselves in Botswana. Due to the fact that the drug is expensive, only rape victims, people who get injured in hospitals and expectant HIV-positive mothers are currently provided with the drug. Expectant HIV-positive mothers are benefiting through the Mother-to-Child Transmission (MTCT) programme aimed at preventing transmission of the disease from mother to child (MTCT Counselling handbook, 1999).

It is interesting to note that the nation is fully involved at all levels in trying to reduce HIV infection and reducing the impact of HIV/AIDS in Botswana. At district and sub-district levels, multisectoral AIDS Committees (DMSAC) have been established (UNDP report, 2000). Their main role is to co-ordinate and promote response programmes at local government level. Communities in the rural areas have joined hands with the government through Community Home-Based Care (CHBC) projects in the fight against the HIV/AIDS epidemic. These projects involve care of patients by their families in their homes with the assistance of social welfare officers and the community at large. Even with limited resources, as noted in the 1996 baseline study on CHBC, the evaluation of the project in Molepolole and Tutume Sub-district and Gabane found that patients and their carers appreciated the project services and rated them highly in terms of communication, provision of care, extent of support, and the referral system.

There is a positive response from the non-governmental organizations on the fight against AIDS. This has led to the setting up of the Botswana Network of AIDS Service Organization (BONASO), which is a body co-ordinating the activities of NGOs and CBOs dealing with HIV and AIDS. The Government and the people of Botswana are hoping that all the above initiatives, with clearly spelt-out intentions, would be able to save the nation from the epidemic.

5.3 South Africa

Detailed work on the impact of HIV/AIDS in the technical and vocational training area has not been undertaken, hence general data are provided here to illustrate the impact of the pandemic.

The publication "The impending catastrophe: a resource book on the emerging HIV/AIDS epidemic in South Africa (Abt Associates South Africa Inc., 2000)" provides the following overview. Over 3.5 million people are currently estimated to be HIV infected, and this number is projected to more than double over the next decade – unless major behavioural changes are adequately promoted and realized. Younger people are most severely affected by the disease, with around 60 per cent of all adults who acquire HIV becoming infected before they turn 25. Young women are particularly vulnerable. They are at greater risk of infection due to biological, social and economic factors; they are also more vulnerable to the various effects of the epidemic. While not fully representative, a recent KwaZulu-Natal voluntary survey of university students (the nation's future professionals and leaders) demonstrated infection rates of 26 per cent in women and 12 per cent in men, aged 20 to 24, and 36 per cent in women and 23 per cent in men, aged 25 to 29. Although data on workforce infection levels are very limited, the number of employees lost to AIDS over the next 10 years could be the equivalent of around 40 to 50 per cent of the current workforce in some South African companies. Accelerated skills development in both young and working-age populations will be critical in containing the impact of the HIV/AIDS epidemic on the economy.

The epidemic will impact on the population directly through deaths of infected people. In addition, birth rates are expected to decline due to deaths among people in relatively high fertility age groups, as well as reduced fertility of HIV-infected women. Without HIV/AIDS, the South African population was expected to grow from 43.7 million in 1999 to 51.3 million in 2010, with a growth rate of around 1.7 per cent in 1999, falling to around 1.5 per cent by 2010. As a result of the HIV/AIDS epidemic, and excluding migration, the population is now expected to reach only 47 million in 2010 under a best-case scenario. Under the worst scenario, the population will peak at 46.7 million in 2008, and have slightly negative growth thereafter.South Africans currently have a life expectancy of 54.7 years and this is predicted to fall to 47 years as the epidemic escalates. No sector – including the technical and vocational training sector – of South African society will be unaffected by the impending catastrophe.

Conclusions

This review of TVE in English-speaking and, to a lesser extent, Portuguese-speaking Africa shows that there is an increasing policy attention for TVE. The reform of TVE constitutes an important component of the education reform agenda. This renewed interest reflects both a concern for employment problems and a strategy to improve economic competitiveness. For SADC countries, the TVE reform agenda contribute to a broader development project towards increased regional integration, including the movement of qualified labour.

Compared to French-speaking countries, the reform process has adopted more 'radical' lines of intervention, including greater attention for skill development and employment in the informal sector, promoting entrepreneurship and self-employment training and opting for a new outcome-based system based on the establishment of a national qualification framework. In the area of financing too, some countries – although a small minority – have chosen to introduce a levy to support initial vocational training, following the experience of many Latin American countries. This transformation movement suggests that TVE in these countries has been more innovative and better able to move away from the school-based system although it is still very present. In so doing, the concerned countries have been able to take advantage of – or have been more exposed to – a diversity of donors with their respective models. This wider exposure to international TVE trends, compared to French-speaking countries, may have contributed to deeper changes.

In spite of such productive policy environments the results of the many reforms implemented in the 1990s have been mixed. Of course these results cannot be dissociated from the economic and employment context. Countries like Botswana, enjoying a robust economic health, or Eritrea and Mozambique, pulled along by a process of economic reconstruction, have been better TVE performers than Kenya, Ghana, Tanzania or Zimbabwe suffering from severe employment and, often, economic difficulties. South Africa is of course a special case due to a unique complex and challenging context. Since the change of government in 1994, the country has been involved in an intense process of policy formulation and consensus building through consultation and partnership. Due to the significance of educational and labour issues in the

347

transformation agenda, TVE constitutes a major sphere of policy intervention. While there are signs of the value of this policy approach, implementation does not yet seem to match policy intentions. The 1998 statement of the Presidential Review commission on the Reform and Transformation of the Public Service in South Africa that "state departments are strong on policy but weak on delivery" seems of some relevance for the TVE sector (Schwella, 2001).

Besides reviewing the overall TVE sector in six countries, this part of the book attached particular attention to four areas of policy intervention considered as determining for the transformation of the sector, namely: organization and management, delivery, national qualification frameworks and financing. Although performance in each area differs according to the country, it seems possible to identify levels of achievement, the emphasis being placed here on potentially productive transformations.

1. Promising changes and innovations

1.1 Shifting management responsibilities towards the employers' side

There is a clear trend towards the establishment of national co-ordination and/or consultative bodies involving employers. This shift in governance pattern, although probably not applicable to all environments, is likely to bring TVE systems closer to the needs of enterprises. This movement is quite different from the pattern prevailing in French-speaking Africa, where the Ministry-based governance system remains in place.

To a large extent, this development is related to a new thinking in public policy which advocates partnership as a key principle to increase efficiency and accountability in public management, ensure ownership of policies and improve relevance of delivery.

1.2 Promoting dual forms of training

In all of the reviewed countries, employers' participation in training delivery is an increasing concern and forms part of TVE policy interventions.

Contrary to the situation in French-speaking Africa, English-speaking countries have a much stronger experience, and sometimes a tradition, both in dual forms of public-sector training and in the provision of training for the artisan sector.

Some countries are well advanced, in terms of policy development, in modernizing apprenticeship schemes to integrate them into a national training system (Botswana, Ghana, South Africa).

Similar to what is happening on an experimental basis in some French-speaking countries, the opening up of public TVE institutions to the informal sector is likely to produce positive indirect effects on initial training.

1.3 Encouraging entrepreneurship and self-employment

In the studied countries, entrepreneurship training is given increasing attention in an effort to alleviate unemployment but also to increase competitiveness. In countries where labour markets were for a long time dominated by public-sector employment, this in itself constitutes a positive incentive.

The development of entrepreneurship awareness and skill programmes in TVE institutions seems consistent with macro-level efforts to increase international competitiveness and alleviate poverty.

Converging findings suggest that entrepreneurship training needs to be included in a broader package including access to credit, technical assistance and post-training support as illustrated in the ISTRA programme in Zimbabwe.

1.4 Attempting to establish outcome-based systems

This trend reflects an increasing degree of policy convergence in TVE, particularly in SADC countries.

For SADC, the development of compatible national qualification frameworks represents a strategic instrument to increase the competitiveness of the sub-region and contribute to further economic and labour market integration.

1.5 Reviewing funding sources and principles

The introduction of a training levy can constitute a significant trend towards increasing employers' participation in training issues.

The strategy followed in South Africa for establishing a formula funding scheme reflects a broader international trend towards output-related funding in TVE. This will be quite an innovative and potentially productive reform, and as such will deserve particular attention.

Besides macro-level responses, the signal is given almost everywhere to promote income-generating activities at the institution level. This trend is convergent with observations made in French-speaking countries.

2. Areas of moderate achievement

Although consistent in essence, the establishment of a National Training Board produced mixed results.

Similar conclusions can be derived from the implementation of training levies and their contribution to the emergence of a market for training. On this point it seems that not enough attention is paid to the experience of other countries and the importance of building trust with industry.[36]

In some cases, the gap between sound policy intentions and instruments and poor results may be due to the fact that not enough attention is paid to contextual environments and to implementing capacities of national institutions.

3. Research gaps

National qualification frameworks are being 'duplicated' in an increasing number of countries with no factual evidence on implementing conditions, costs and on impact.

Although conceptually attractive, training programmes for entrepreneurship and self-employment need to be investigated to provide firm empirical evidence on this strategy.

Training for the rural areas seems to be a neglected aspect in spite of the still rural character of the majority of the population.

Devoting more attention to the reform process may be useful to fully understand the slowness and the inertia met in some cases (Ghana, South Africa).

Reforming TVE public institutions remains a key challenge to rapidly have an impact on the quality and relevance of training. It seems clear that, in the SSA context, transforming the institutional, legal and financial framework in which institutions operate is not sufficient to produce significant results at the micro-level. The experiences of the six countries discussed here confirm the observation already made for French-speaking countries. New scenarios need to be developed to correct this situation. It is however also clear that impoverished and weakened institutions cannot undertake the required evolution unless they receive sufficient and adequate support from the state. New forms of micro-level interventions to reform institution management and leadership and to develop the institutional capacities required for establishing meaningful linkages with the environment could probably become a strategic line for donor support.

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[36] A recent illustration of this was offered by Australia in 1994, when the government had to suspend the Training Guarantee Levy due to strong industry resistance. Adopting a more cautious approach, New Zealand intended to ballot all enterprises in 2001 as to whether or not they would support a levy. If the majority supports a levy, all enterprises will be required to pay.

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The book

The situation of technical and vocational education varies widely across sub-Saharan countries. Delivery systems are diverse, combining school-based provision with various non-formal training arrangements. Unfortunately, this diversity is also associated with glaring disparities. Differences in historical, political, cultural and economic contexts largely account for such variations in structures, operating conditions and outcomes.

Nevertheless, emerging common trends can be identified. In addition to the specific crisis affecting most training systems in sub-Saharan Africa, globalization, associated with the rise of a market-oriented paradigm in education, has shaped the different reform processes along similar lines. A shift in the policy focus from inputs to outputs, the use of new financing and certification mechanisms, the involvement of social partners in governance, greater autonomy for institutions, the promotion of private providers and company-based training are part of this new approach. In addition, the specific socio-economic conditions of African economies have generated an increasing interest in the informal sector and skills development for poverty reduction.

This book examines these policy trends and the reconstruction of training systems. An attempt is made to document the relationship between training systems and donor intervention, with special reference to French-speaking African countries and France. Particular attention is also focused on innovations in an effort to identify promising initiatives likely to contribute to the establishment of consistent technical and vocational education systems, closely linked with the world of work and involving labour market stakeholders.

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